

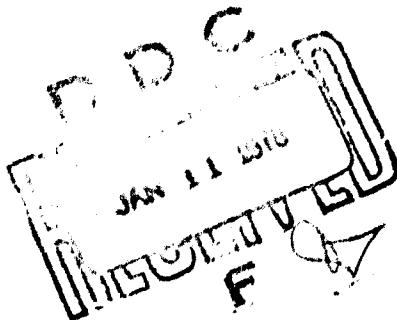
10 A048591

12  
AD

TECHNICAL REPORT  
NATICK/TR-77/029

# ANTHROPOMETRY OF WOMEN OF THE U.S. ARMY - 1977

Report No. 5 - Comparable Data for U.S. Army Men



July 1977

NO. 1  
FILE COPY

Approved for public release;  
distribution unlimited.

UNITED STATES ARMY  
NATICK RESEARCH and DEVELOPMENT COMMAND  
NATICK, MASSACHUSETTS 01760



Clothing, Equipment & Materials Engineering Laboratory

CE&MEL-176

Approved for public release; distribution unlimited.

Citation of trade names in this report does not constitute an official indorsement or approval of the use of such items.

Destroy this report when no longer needed. Do not return it to the originator.

(18) UNCLASSIFIED

CE/MEL, NATICK

(19)

176, TR-77/029

SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

REPORT DOCUMENTATION PAGE			READ INSTRUCTIONS BEFORE COMPLETING FORM
1. REPORT NUMBER NATICK/TR-77/029	2. GOVT ACCESSION NO.	3. RECIPIENT'S CATALOG NUMBER	
4. TITLE (and Subtitle) ANTHROPOMETRY OF WOMEN OF THE U.S. ARMY--1977. REPORT 5 • COMPARATIVE DATA FOR U.S. ARMY MEN Number		5. TYPE OF REPORT & PERIOD COVERED 9 Technical Report.	
6. AUTHOR(s) John T. McConville, Edmund Churchill, Thomas Churchill, Robert M. Whitey U.S. Army Natick Research and Development Command		7. PERFORMING ORG. REPORT NUMBER CEMEL-176	
8. PERFORMING ORGANIZATION NAME AND ADDRESS Webb Associates, Inc. P. O. Box 308 Yellow Springs, Ohio 45387		9. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS 62723A 11762723AH98 AC-003	
10. CONTROLLING OFFICE NAME AND ADDRESS U.S. Army Natick Research and Development Command Attn: DRXNM-VCA Natick, Massachusetts 01760		11. REPORT DATE Jul 1977	
12. MONITORING AGENCY NAME & ADDRESS(if different from Controlling Office)		13. NUMBER OF PAGES 237	
14. DISTRIBUTION STATEMENT (of this Report)		15. SECURITY CLASS. (of this report) Unclassified	
16. DISTRIBUTION STATEMENT (of the abstract entered in Block 20, if different from Report)		15a. DECLASSIFICATION/DOWNGRADING SCHEDULE	
17. SUPPLEMENTARY NOTES			
18. KEY WORDS (Continue on reverse side if necessary and identify by block number) Anthropometry      Survey(s)      Human factors engineering Measurement(s)      U.S. Army      Static strength Body size      Military personnel      Data Sizes (Dimensions)      Men			
19. ABSTRACT (Continue on reverse side if necessary and identify by block number) This report, the fifth in a series which deals with the results of an anthropometric survey of 1331 U.S. Army women, presents comparable data resulting from the measurement of 287 Army men. The opportunity to secure measurements on male subjects made by the same technicians at the same time and place, and using precisely the same measuring techniques, provided a unique source of comparative data for the design of Army clothing, equipment, and workspaces which, increasingly, must accommodate the wide range of sizes represented by both sexes.			

DD FORM 1 JAN 73 EDITION OF 1 NOV 68 IS OBSOLETE

UNCLASSIFIED

SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

401 286

UNCLASSIFIED

SECURITY CLASSIFICATION OF THIS PAGE(When Data Entered)

20. ABSTRACT (continued)

The subjects in the

The men's survey was carried out at Fort Jackson, South Carolina, in early 1977. The subjects represented a homogeneous group, chiefly trainees with a median age of about 19 years. The sample was composed of approximately two-thirds Whites, one-third Blacks, and a small fraction of Orientals.

This report describes the conduct of the survey on men and includes the univariate summary statistics and frequency tables resulting from it. Data obtained in the survey included 44 of the 69 body size measurements made on Army women and 13 of an additional 24 standard body dimensions measured on the women, as well as three identical subseries of workspace, head and face, and static strength measurements. Also provided are 51 selected bivariate frequency tables.



1473B

ACCESSION for

NTIS	Vide Section <input checked="" type="checkbox"/>
DDC	S. C. Section <input type="checkbox"/>
AMERICAN STANDARD	<input type="checkbox"/>
U. S. GOVERNMENT	<input type="checkbox"/>
PRINTED IN U. S. A.	<input type="checkbox"/>
DISTINCTIVE MARKS COPIES	
P. CIAL	
A	

UNCLASSIFIED

SECURITY CLASSIFICATION OF THIS PAGE(When Data Entered)

## PREFACE

The research reported here was carried out by the Anthropology Research Project of Webb Associates in Yellow Springs, Ohio, under contract DAAG17-76-C-0010 with the U. S. Army Research and Development Command in Natick, Massachusetts. Mr. Edmund Churchill served as senior investigator and Mr. Robert M. White as project officer.

Arrangements for the survey's operations and the scheduling of subjects--both female and male--at Fort Jackson were handled efficiently and cooperatively by Lieutenant Colonel Robert D. Martin and Mr. Gordon Wingard of the Supply Division; it is the authors' pleasure to acknowledge once again the importance of their help. The actual measuring at Fort Jackson was conducted in physical facilities normally assigned to SP/4 Frances Moyer; the cheerful welcome, cooperation, and assistance provided the survey team by Fran and Sheba Moyer constitute for all involved rich and pleasant memories.

The data editing and analysis was the responsibility of Thomas Churchill. Preparation of the report for publication was undertaken by Ms. Jane Reese with the assistance of Ms. Diann O'Daniel. Ms. Ilse Tebbetts did the final editing.

Preceding Page BLANK - FILMED

TABLE OF CONTENTS

	<u>Page</u>
LIST OF FIGURES . . . . .	5
LIST OF TABLES . . . . .	5
INTRODUCTION. . . . .	7
CHAPTER I. THE CONDUCT OF THE SURVEY AND ITS SAMPLE . . . . .	9
CHAPTER II. THE CORE--SUBSERIES 1 MEASUREMENTS. . . . .	19
CHAPTER III. SUBSERIES 2: WORKSPACE MEASUREMENTS. . . . .	33
CHAPTER IV. SUBSERIES 3: HEAD AND FACE MEASUREMENTS. . . . .	39
CHAPTER V. SUBSERIES 4: STATIC STRENGTH MEASUREMENTS. . . . .	51
BIBLIOGRAPHY. . . . .	67
APPENDIX A. Additional Summary Statistics. . . . .	69
1. Core-subseries 1 measurements. . . . .	70
2. Workspace subseries. . . . .	72
3. Head and face subseries. . . . .	73
APPENDIX B. Frequency Tables . . . . .	75
1. Core-subseries 1 measurements. . . . .	76
2. Workspace subseries. . . . .	105
3. Head and face subseries. . . . .	113
4. Static strength subseries. . . . .	132
APPENDIX C. XVAL Computer Printouts. . . . .	151
1. Core-subseries 1 measurements. . . . .	153
2. Workspace subseries. . . . .	163
3. Head and face subseries. . . . .	166
4. Static strength subseries. . . . .	172
APPENDIX D. Bivariate Frequency Tables . . . . .	179
INDEX BY NAME, ANATOMICAL LOCATION, AND MEASUREMENT TECHNIQUE. .	231

LIST OF FIGURES

<u>Figure</u>		<u>Page</u>
1	The survey blank: core and subseries 1 measurements . . .	20
2	The survey blank: workspace subseries . . . . .	34
3	The survey blank: head and face subseries . . . . .	40
4	Headboard . . . . .	41
5	Strength-measuring handles. . . . .	52
6a,b	The survey blank: static muscle strength subseries. . .	53,54

LIST OF TABLES

<u>Table</u>		
1	Distribution of Sample by Subsample Membership. . . . .	10
2	List of Measurement Names and Sequence Numbers. . . . .	12
3a,b	Distributions by Socio-Military Background Variables. .	17,18
4	Basic Summary Statistics: Core-Subseries 1 Measurements. . . . .	27
5	Basic Summary Statistics: Workspace Measurements. . . . .	37
6	Basic Summary Statistics: Head and Face Measurements. .	46
7a-i	Static Strength Measurements. . . . .	57-65

ANTHROPOMETRY OF WOMEN IN THE U. S. ARMY--1977  
REPORT NO. 5 - COMPARATIVE DATA FOR U. S. ARMY MEN

INTRODUCTION

The increasing presence of women in the ranks of the U. S. Army and, in particular, their presence in job assignments not previously open to them has created a substantial need for body size and related data for Army women. In some areas, such data will be used to create clothing, masks, and other items of personal equipment designed specifically for women. In other areas, however, design efforts will be directed toward items for use by both women and men and toward integrated systems of sizes. It is important, not only in the support of such design efforts but for the exploration of the feasibility of such efforts as well, that there exist data for men and women based on precisely the same measurement techniques. It is doubtful that there exists any method for doing this other than that of having the same measurers make the measurements on both the women and the men.

Thus when the opportunity arose, while conducting the survey of U. S. Army women, to measure a sample of young Army men using the same measuring team and the same techniques, it represented a chance to obtain comparative data unique in the history of U. S. military body size studies. This report describes the conduct of the men's sub-survey and includes the univariate summary statistics for the data obtained in it. A measurement-by-measurement comparison of the data for the men with that for the women will be provided in a later report.

Chapter I describes the conduct of the survey and provides a modest amount of background information about the sample. The next chapter defines the measurements included in the "core" series combined with subseries 1 and lists the mean, the standard deviation, the coefficient of variation, and 13 percentile values for each variable, both in metric and English units. Chapters III-V provide similar information for the measurements in the several subseries. Secondary sets of statistical information are given in the three appendices of the report. Measures of symmetry and kurtosis and standard errors of the means and standard deviations and six additional percentiles are given in Appendix A. Appendix B contains the frequency distributions, and Appendix C lists the "XVAL" computer printouts. Selected bivariate frequency tables can be found in Appendix D.

The final item in this report is the Index by Name, Anatomical Location, and Measurement Technique, which, it is hoped, will facilitate the identification and location of the measurements.

The general survey methodology and the measurement techniques were described in the first report of this series (Laubach, L. L., J. T. McConville, E. Churchill and R. M. White, Anthropometry of Women of the U. S. Army--1977, Report No. 1, Methodology and Survey Plan, Technical Report NATICK/TR-77/021, U. S. Army Natick Research and Development Command, Natick, Massachusetts, 1977); the basic statistical summaries have been given in the second report of the series (Churchill, E., T. Churchill, J. T. McConville and R. M. White, Anthropometry of Women of the U. S. Army--1977, Report No. 2, The Basic Univariate Statistics, Technical Report NATICK/TR-77/024, U. S. Army Natick Research and Development Command, Natick, Massachusetts, 1977). Over 300 bivariate frequency tables based on the women's data are presented in the third report (Churchill, T., E. Churchill, J. T. McConville and R. M. White, Anthropometry of Women of the U. S. Army--1977, Report No. 3, Bivariate Frequency Tables, Technical Report NATICK/TR-77-028, U. S. Army Natick Research and Development Command, Natick, Massachusetts, 1977).

## Chapter I

### THE CONDUCT OF THE SURVEY AND ITS SAMPLE

The measurement of 287 male soldiers was carried out at Fort Jackson, South Carolina, during the brief period from February 3 to February 11, 1977, following the completion of a survey of Army women. The subjects were, with one exception, men undergoing basic training who, as a rule, had been in the Army less than two weeks.

The general methodology of the survey and its staff was essentially the same as that of the anthropometric survey of U. S. Army women, a survey which had been conducted during the periods November 2 to December 3, 1976, and January 10 to February 3, 1977, at Fort Sam Houston, Fort McClellan, Walter Reed Medical Center, and Fort Jackson.

#### The Measurements

A significant aspect of the women's survey was the division of the measurements into a core series and four subseries: (a) additional traditional anthropometry; (b) workspace measurements; (c) head and face measurements; and (d) static strength measurements. All of the women were measured in the core series and roughly one-quarter of the women were measured with each subseries of measurements. For the men, this arrangement was changed by eliminating some measurements from the core series and the first subseries and combining the remaining elements of these two series into a set of measurements which was made on all subjects. Two measurements, midshoulder height and waist height, omphalion, which had been measured on only a few of the women, were added to this series. The measurements in the other series (workspace, head and face, and static strength) were the same for both the women and the men except for the addition of three measurements (ear length, ear breadth and biauricular breadth) to the head and face series.

The plan of making one, and just one, subseries of measurements on each subject was not followed exactly. More than one series was made on some subjects and none on others. The exact pattern is shown in Table 1.

The core and the initial subseries measurements were made during the women's survey with the subjects wearing panties and bras. It had been anticipated that these measurements would be made in the men's survey with the subjects wearing swimming trunks, but neither swimming nor gym trunks were available in adequate numbers. As a result, the men were measured wearing fatigue pants and underpants. Several measurements which we had planned to include in the men's series were

TABLE 1  
DISTRIBUTION OF SAMPLE BY SUBSAMPLE MEMBERSHIP

Core - Subseries 1 only: N = 54  
Core - Subseries 1 plus workspace: N = 41  
Core - Subseries 1 plus head and face: N = 33  
Core - Subseries 1 plus strength: N = 86  
Core - Subseries 1 plus workspace and head and face: N = 57  
Core - Subseries 1 plus head and face and strength: N = 8  
Core - Subseries 1 plus workspace, head and face  
and strength: N = 4  
Core - Subseries 1 plus workspace and strength: N = 4  
Core - Subseries 1 total = 287  
Workspace Subseries total = 106  
Head and Face Subseries total = 102  
Static Strength Subseries total = 102

dropped because the measurers felt it impossible to locate landmarks adequately; other measurements were clearly affected by the clothing. These measurements will be identified in Chapter II.

There were no clothing problems with the workspace and static strength subseries which were measured on both the women and the men with the subjects fully clothed. Clothing was, of course, irrelevant for the head-face subseries. It had not been possible to make the full set of head-face measurements on some women because they were wearing wigs; no similar problem arose in the men's survey.

Measuring techniques, except as they were affected by clothing, were the same in both the men's and women's surveys, and each member of the measuring team made in the men's survey only measurements she had previously made in the women's survey.

The measurements made on the men are listed in Table 2. For each variable, this table includes its full name, a short name (no longer than 18 characters) which will be used in some computer generated tables, and a sequence number. To simplify the simultaneous use of data from the men's and women's surveys, we have assigned the same sequence numbers to the variables measured in the men's survey as had been assigned to that variable in the women's survey. Since the consolidation of the core measurement and traditional anthropometry series resulted in eliminating some measurements in the men's survey there will be irregularities and gaps in the numbering sequences in the summary statistic tables, frequency distribution tables and the XVAL tables. An additional listing of the variable names appears at the end of the report in the Index by Name, Anatomical Location, and Anthropometric Technique. Here, as the name of this index suggests, each variable is listed several times: by its name, by the area of the body it measures, by its beginning and ending landmarks, and by its general class (height, breadth, circumference, and so forth).

#### The Computational Procedures and Statistical Summaries

The computational and data processing procedures were exactly those used for the women's data and have been explained in detail in Report No. 2 (Churchill, E., T. Churchill, J. T. McConville, and R. M. White. 1977. Anthropometry of Women of the U. S. Army--1977, Report No. 2 - The Basic Univariate Statistics. Technical Report Natick/TR-77/024, Natick Research and Development Command, Natick, Massachusetts). The statistical summaries are, as well, those described in that report, with some differences in the manner of presentation. In Chapters II-V we have listed for each measurement its mean, standard deviation, coefficient of variation and 13 percentiles: 5th, 10th, 15th, 20th, 25th, 35th, 50th, 65th, 75th, 80th, 85th, 90th, and

TABLE 2  
LIST OF MEASUREMENT NAMES AND SEQUENCE NUMBERS

	SHORT NAME	LONG NAME
9T	ACROMION-RADIALE L	ACROMION-RADIALE LENGTH
40C	ANKLE CIRCUMFERENCE	ANKLE CIRCUMFERENCE
4G	AXILLA HEIGHT	AXILLA HEIGHT
44C	BACK CURVATURE-CHEST	BACK CURVATURE-CHEST
46C	BACK CURVATURE-HIP	BACK CURVATURE-HIP
45C	BACK CURVATURE-WAIST	BACK CURVATURE-WAIST
13W	BENT KNEE HEIGHT	BENT KNEE HEIGHT, SUPINE
10W	BENT TORSO BREADTH	BENT TORSO BREADTH
9W	BENT TORSO HEIGHT	BENT TORSO HEIGHT
16T	BIACROMIAL BREADTH	BIACROMIAL BREADTH
34H	BIAURICULAR BR	BIAURICULAR BREADTH
33C	BICEPS CIRC, FLEXED	BICEPS CIRCUMFERENCE, FLEXED
23T	BICEPS CIR, RELAXED	BICEPS CIRCUMFERENCE, RELAXED
27T	BICEPS SKINFOLD	BICEPS SKINFOLD
27H	BIOCULAR BREADTH	BIOCULAR BREADTH
2H	BITRON-CORONAL ARC	BITRAGION-CORONAL ARC
3H	BITRON-FRONTAL ARC	BITRAGION-FRONTAL ARC
4H	BITR'ON-MENTON ARC	BITRAGION-MENTON ARC
5H	BIT-SUBMANDBLR ARC	BITRAGION-SUBMANDIBULAR ARC
14H	BITRAGION BREADTH	BITRAGION BREADTH
17C	BUTTOCK-KNEE LENGTH	BUTTOCK-KNEE LENGTH
8C	BUTTOCK HEIGHT	BUTTOCK HEIGHT
39C	CALF CIRCUMFERENCE	CALF CIRCUMFERENCE
27C	CHEST CIRCUMFERENCE	CHEST CIRCUMFERENCE
18C	CHEST DEPTH	CHEST DEPTH
5C	CHEST HEIGHT	CHEST HEIGHT
24H	CRINION-MENTON	CRINION-MENTON
33H	EAR BREADTH	EAR BREADTH
32H	EAR LENGTH	EAR LENGTH
16H	ECTOCANTHUS-VERTEX	ECTOCANTHUS TO VERTEX
12H	ECTOCANTHUS-WALL	ECTOCANTHUS TO WALL
14C	ELBOW-FINGERTIP LH	ELBOW-FINGERTIP LENGTH
11T	ELBOW-GRIP LENGTH	ELBOW-GRIP LENGTH
4T	ELBOW (RADIALE) HT	ELBOW (RADIALE) HEIGHT
12C	EYE HEIGHT/SITTING	EYE HEIGHT, SITTING
26H	FACE B/BIZYGMATIC	FACE BREADTH (BIZYGMATIC)
23H	FACE LENGTH	FACE LENGTH (SELLION-MENTON)
64C	FOOT BREADTH	FOOT BREADTH
66C	FOOT CIRCUMFERENCE	FOOT CIRCUMFERENCE
62C	FOOT LENGTH	FOOT LENGTH
5H	FUNCTIONAL LEG LN	FUNCTIONAL LEG LENGTH
3H	FUNCTIONAL REACH/EXT	FUNCTIONAL REACH EXTENDED
2H	FUNCTIONAL REACH	FUNCTIONAL REACH
17H	GLABELLA TO VERTEX	GLABELLA TO VERTEX
6H	GLABELLA TO WALL	GLABELLA TO WALL

VARIABLE NUMBER BY SUBSERIES  
( C=CORE, T=TRADITIONAL, W=WORKSPACE, H=HEAD & FACE, S=STRENGTH )

TABLE 2  
LIST OF MEASUREMENT NAMES AND SEQUENCE NUMBERS

	SHORT NAME	LONG NAME
7T	GLUTEAL FURROW HGT	GLUTEAL FURROW HEIGHT
58C	HAND BREADTH	HAND BREADTH
59C	HAND CIRCUMFERENCE	HAND CIRCUMFERENCE
60C	HAND LENGTH	HAND LENGTH
55C	HEAD BREADTH	HEAD BREADTH
54C	HEAD CIRCUMFERENCE	HEAD CIRCUMFERENCE
15H	HEAD HT/TRAGN-VRTX	HEAD HEIGHT (TRAGION-VERTEX)
56C	HEAD LENGTH	HEAD LENGTH
63C	HEEL-ANKLE CIRCUMF	HEEL-ANKLE CIRCUMFERENCE
30C	HIP CIRCUMFERENCE	HIP CIRCUMFERENCE
14W	HORIZ L/KNEES BENT	HORIZONTAL LENGTH, KNEES BENT
61C	INSTEP LENGTH	INSTEP LENGTH
28H	INTERPUPILLARY DIS	INTERPUPILLARY DISTANCE
42C	INTERSCYE, BACK	INTERSCYE, BACK
43C	INTERSCYE, FRONT	INTERSCYE, FRONT
11W	KNEELING HEIGHT	KNEELING HEIGHT
12W	KNEELING LEG LNGTH	KNEELING LEG LENGTH
15C	KNEE HEIGHT/SIT	KNEE HEIGHT, SITTING
5T	KNUCKLE HEIGHT	KNUCKLE HEIGHT
10H	LIP PROTUS'N-WALL	LIP PROTRUSION TO WALL
22H	MENTON TO VERTX	MENTON TO VERTEX
11H	MENTON TO WALL	MENTON TO WALL
30T	MIDSHOULDER HT/SIT	MIDSHOULDER HEIGHT, SITTING
25H	MINIMUM FRONTAL BR	MINIMUM FRONTAL BREADTH
31H	MOUTh BRTH/SMILING	MOUTh BREADTH, SMILING
30H	NOSE BREADTH	NOSE BREADTH
29H	NOSE LENGTH	NOSE LENGTH (SELLION-SUBNASALE)
8W	OVERHEAD RCH BROTH	OVERHEAD REACH BREADTH
1W	OVERHEAD REACH HGT	OVERHEAD REACH HEIGHT
4W	OVERHEAD REACH/SIT	OVERHEAD REACH, SITTING
57C	PALM LENGTH	PALM LENGTH
16C	POPLITEAL HEIGHT	POPLITEAL HEIGHT
19H	PRONASALE TO VERTX	PRONASALE TO VERTEX
8H	PRONASALE TO WALL	PRONASALE TO WALL
10T	RADIALE-STYLIOn LH	RADIALE-STYLIOn LENGTH
1H	SAGITTAL ARC	SAGITTAL ARC
18H	SELLION TO VERTX	SELLION TO VERTEX
7H	SELLION TO WALL	SELLION TO WALL
13C	SHOULDER-ELBOW LTH	SHOULDER-ELBOW LENGTH
25C	SHOULDER CIRCUMFER	SHOULDER CIRCUMFERENCE
11C	SITTING HEIGHT	SITTING HEIGHT
51C	SLEEVE INSEAM LGTH	SLEEVE INSEAM LENGTH
52C	SLEEVE OUTSEAM LTH	SLEEVE OUTSEAM LENGTH
69C	SPHYRION HEIGHT	SPHYRION HEIGHT
7W	STATURE (CLOTHED)	STATURE (CLOTHED)

VARIABLE NUMBER BY SUBSERIES  
( C=CORE, T=TRADITIONAL, W=WORKSPACE, H=HEAD & FACE, S=STRENGTH )

TABLE 2  
LIST OF MEASUREMENT NAMES AND SEQUENCE NUMBERS

	SHORT NAME	LONG NAME
2C	STATURE	STATURE
21H	STOMION TO VERTEX	STOMION TO VERTEX
17S	STRNGTH/1H 100CM M1	STRENGTH-ONE HANDED-DOMINANT SIDE-100 CM-MEAN I
18S	STRNGTH/1H 100CM M2	STRENGTH-ONE HANDED-DOMINANT SIDE-100 CM-MEAN II
19S	STRNGTH/1H 100CM P1	STRENGTH-ONE HANDED-DOMINANT SIDE-100 CM-PEAK I
20S	STRNGTH/1H 100CM P2	STRENGTH-ONE HANDED-DOMINANT SIDE-100 CM-PEAK II
25S	STRNGTH/1H 45CM M1 S	STRENGTH-ONE HANDED-SEATED-AT SIDE-45CM-MEAN I
26S	STRNGTH/1H 45CM M2 S	STRENGTH-ONE HANDED-SEATED-AT SIDE-45CM-MEAN II
27S	STRNGTH/1H 45CM P1 S	STRENGTH-ONE HANDED-SEATED-AT SIDE-45CM-PEAK I
28S	STRNGTH/1H 45CM P2 S	STRENGTH-ONE HANDED-SEATED-AT SIDE-45CM-PEAK II
21S	STRNGTH/1H 45CM M1 C	STRENGTH-ONE HANDED-SEATED-CENTERLINE-45CM-MEAN I
22S	STRNGTH/1H 45CM M2 C	STRENGTH-ONE HANDED-SEATED-CENTERLINE-45CM-MEAN II
23S	STRNGTH/1H 45CM P1 C	STRENGTH-ONE HANDED-SEATED-CENTERLINE-45CM-PEAK I
24S	STRNGTH/1H 45CM P2 C	STRENGTH-ONE HANDED-SEATED-CENTERLINE-45CM-PEAK II
29S	STRNGTH/2H 38CM M1	STRENGTH-TWO HANDED PULL-SEATED-38CM-MEAN I
30S	STRNGTH/2H 38CM M2	STRENGTH-TWO HANDED PULL-SEATED-38CM-MEAN II
31S	STRNGTH/2H 38CM P1	STRENGTH-TWO HANDED PULL-SEATED-38CM-PEAK I
32S	STRNGTH/2H 38CM P2	STRENGTH-TWO HANDED PULL-SEATED-38CM-PEAK II
33S	STRNGTH/2H 50CM M1	STRENGTH-TWO HANDED PULL-SEATED-50CM-MEAN I
34S	STRNGTH/2H 50CM M2	STRENGTH-TWO HANDED PULL-SEATED-50CM-MEAN II
35S	STRNGTH/2H 50CM P1	STRENGTH-TWO HANDED PULL-SEATED-50CM-PEAK I
36S	STRNGTH/2H 50CM P2	STRENGTH-TWO HANDED PULL-SEATED-50CM-PEAK II
1S	STRNGTH/2H 38CM M1	STRENGTH-TWO HANDED PULL-38 CM LEVEL-MEAN I
2S	STRNGTH/2H 38CM M2	STRENGTH-TWO HANDED PULL-38 CM LEVEL-MEAN II
3S	STRNGTH/2H 38CM P1	STRENGTH-TWO HANDED PULL-38 CM LEVEL-PEAK I
4S	STRNGTH/2H 38CM P2	STRENGTH-TWO HANDED PULL-38 CM LEVEL-PEAK II
5S	STRNGTH/2H 50CM M1	STRENGTH-TWO HANDED PULL-50 CM LEVEL-MEAN I
6S	STRNGTH/2H 50CM M2	STRENGTH-TWO HANDED PULL-50 CM LEVEL-MEAN II
7S	STRNGTH/2H 50CM P1	STRENGTH-TWO HANDED PULL-50 CM LEVEL-PEAK I
8S	STRNGTH/2H 50CM P2	STRENGTH-TWO HANDED PULL-50 CM LEVEL-PEAK II
9S	STRNGTH/2H 100CM M1	STRENGTH-TWO HANDED PULL-100 CM LEVEL-MEAN I
10S	STRNGTH/2H 100CM M2	STRENGTH-TWO HANDED PULL-100 CM LEVEL-MEAN II
11S	STRNGTH/2H 100CM P1	STRENGTH-TWO HANDED PULL-100 CM LEVEL-PEAK I
12S	STRNGTH/2H 100CM P2	STRENGTH-TWO HANDED PULL-100 CM LEVEL-PEAK II
13S	STRNGTH/2H 150CM M1	STRENGTH-TWO HANDED PUSH-150 CM LEVEL-MEAN I
14S	STRNGTH/2H 150CM M2	STRENGTH-TWO HANDED PUSH-150 CM LEVEL-MEAN II
15S	STRNGTH/2H 150CM P1	STRENGTH-TWO HANDED PUSH-150 CM LEVEL-PEAK I
16S	STRNGTH/2H 150CM P2	STRENGTH-TWO HANDED PUSH-150 CM LEVEL-PEAK II
20H	SUBNASALE TO VERTX	SUBNASALE TO VERTX
9H	SUBNASALE TO WALL	SUBNASALE TO WALL
25T	SUBSCAPULAR SKINFOLD	SUBSCAPULAR SKINFOLD
3T	SUBSTERNALE HEIGHT	SUBSTERNALE HEIGHT
28T	SUPRAILIAC SKINFLD	SUPRAILIAC SKINFLD
2T	SUPRATERNALE HGT	SUPRATERNALE HEIGHT
8T	TIBIALE HEIGHT	TIBIALE HEIGHT

VARIABLE NUMBER BY SUBSERIES  
( C=CORE, T=TRADITIONAL, H=WORKSPACE, M=HEAD & FACE, S=STRENGTH )

TABLE 2  
LIST OF MEASUREMENT NAMES AND SEQUENCE NUMBERS

	SHORT NAME	LONG NAME
13H	TRAGION TO WALL	TRAGION TO WALL
26T	TRICEPS SKINFOLD	TRICEPS SKINFOLD
47C	WAIST BACK LENGTH	WAIST BACK LENGTH
29C	WAIST CIRCUMFERENCE	WAIST CIRCUMFERENCE
19T	WAIST C, OMPHALION	WAIST CIRCUMFERENCE, OMPHALION
19C	WAIST DEPTH	WAIST DEPTH
48C	WAIST FRONT LENGTH	WAIST FRONT LENGTH
6C	WAIST HEIGHT	WAIST HEIGHT
29T	WAIST HT/OMPHALION	WAIST HEIGHT (OMPHALION)
6W	WEIGHT (CLOTHED)	WEIGHT (CLOTHED)
1C	WEIGHT	WEIGHT

VARIABLE NUMBER BY SUBSERIES  
( C=CORE, T=TRADITIONAL, W=WORKSPACE, H=HEAD & FACE, S=STRENGTH )

95th. The dimensional values are given in centimeters and inches or in kilograms and pounds. Because of the relatively small sample size, percentiles below the fifth and above the 95th are not given. A few statistics-- $\beta_1$  the measure of symmetry,  $\beta_2$  the measure of kurtosis, standard errors of the mean and standard deviation, and the 30th, 40th, 45th, 55th, 60th, and 70th percentiles--have been relegated to Appendix A.

#### Staff

The measuring team was made up of the same women from the beginning of the women's survey to the end of the men's survey: Becca Fenton, Jay Frost, Leslie Metcalf, Diann O'Daniel, Becky Sikes, and Elizabeth Wheeler. These women, who had been intensively trained prior to the survey in particular blocks of measurements, made all the core, traditional anthropometry, and head and face measurements. During the period in which men were measured (as well as during the second half of the women's survey), full responsibility for the team's activities was carried by Patricia Reese. With the assistance of Linda Gronwoldt, Ms. Reese made all the workspace measurements and some of the strength measurements. Most of the strength measurements for the men were made by Dr. L. L. Laubach.

#### The Sample

The 287 men who made up the sample were a very homogeneous group in terms of age, rank, and length of service. With a single exception, they were trainees most of whom had been in the Army less than a month. Most reported that they were 17, 18, or 19 years of age; the median age was close to 19 years. One hundred ninety-one men or 67% were Whites, 90 or 31% Blacks, and 6 or 2% Orientals. Distributions for these variables, place of birth, and handedness are given in Table 3.

TABLE 3a  
DISTRIBUTIONS BY SOCIO-MILITARY BACKGROUND VARIABLES

a. RANK

	<u>Total</u>	<u>Work-space</u>	<u>Head &amp; Face</u>	<u>Strength</u>
E-5	1	1	--	
E-4	5	2	1	2
E-3	7	4	5	3
E-2	21	10	9	7
E-1	<u>253</u>	<u>89</u>	<u>87</u>	<u>90</u>
Total	287	106	102	102

b. AGE

	<u>Total</u>	<u>Work-space</u>	<u>Head &amp; Face</u>	<u>Strength</u>
Over 24	8	3	1	3
24	6	2	2	0
23	18	9	6	5
22	9	3	8	1
21	19	9	7	8
20	30	11	11	13
19	55	15	15	22
18	64	26	21	24
17	75	25	30	25
16	<u>3</u>	<u>3</u>	<u>1</u>	<u>1</u>
Total	287	106	102	102

Median 19

c. LENGTH OF SERVICE

	<u>Total</u>	<u>Work-space</u>	<u>Head &amp; Face</u>	<u>Strength</u>
12 years	1	1	0	0
1-6 months	37	17	17	12
0-1 month	<u>249</u>	<u>88</u>	<u>85</u>	<u>90</u>
Total	287	106	102	102

TABLE 3b  
DISTRIBUTIONS BY SOCIO-MILITARY BACKGROUND VARIABLES

d. RACE

	Total		Work-space		Head & Face		Strength	
	N	%	N	%	N	%	N	%
White	191	66.6	68	64.2	72	70.6	67	65.7
Black	90	31.4	37	34.9	30	29.4	32	31.4
Oriental	6	2.3	1	0.9	--	--	3	2.9
Total	287		106		102		102	

e. BIRTHPLACE

	Total	Work-space	Head & Face	Strength
New England	12	4	2	4
South Atlantic	54	23	19	20
Mid-Atlantic	49	12	14	22
East North Central	50	18	22	18
East South Central	32	12	10	7
West North Central	16	10	9	5
West South Central	31	13	10	9
Mountain	9	3	3	5
Pacific	23	9	9	7
Foreign	10	2	3	5
Unascertained	1	0	1	0
Total	287	106	102	102

f. HANDEDNESS

	Total
Right Handed	234
Left Handed	33
Ambidextrous	12
Unascertained	8
Total	287

## CHAPTER II

### THE CORE-SUBSERIES 1 MEASUREMENTS

Forty-four of the core series of measurements and 13 of the traditional measurements (subseries 1) made on the women were included among the measurements for the men. The primary reason for the reduction of the core measurements from 69 to 44 and of the traditional measurements from 28 to 12 was to reduce the time required for making these measurements so that the time needed for the combined core-subseries 1 list of measurements would be about what the full core series had required. Despite this reduction, the present series provides a fairly comprehensive anthropometric description of the men in our survey sample. The survey blank for the combined core-subseries 1 set of measurements appears in Figure 1.

These measurements were composed of 13 standing heights: stature, axilla, chest, waist (natural waistline), waist (omphalion), buttock, sphyrion, substernale, suprasternale, elbow, knuckle, gluteal furrow and tibiale; five seated heights, sitting, eye, knee, popliteal and midshoulder; five major torso circumferences: shoulder, chest, waist (natural waistline), waist (omphalion) and hip; two leg circumferences: calf and ankle; and two arm circumferences: biceps, flexed, and biceps, relaxed, were measured. An additional seven surface measurements: interscye front, interscye back, waist front, waist back, and back curvature at chest, waist and hip level, were made on the torso. Measurements on the extremities included length, breadth and circumference on the head, the hand, and the foot, plus palm length, instep length, and heel-ankle circumference. Eight measurements involved arm or leg lengths: sleeve inseam, sleeve outseam, acromion-radiale length, radiale-stylin length, shoulder-elbow, elbow-fingertip, elbow-center of grip and buttock-knee length. Two depths, chest and waist, one breadth, biacromial breadth, and weight completed the list.

Four measurements, originally scheduled for inclusion in this series--abdominal extension depth, thigh-to-thigh breadth, bispinous breadth, and hip (trochanteric) height were deleted because of difficulties in making them on subjects wearing pants.

Waist height at omphalion and midshoulder height, sitting, which had been measured on only a small number of subjects in the women's sample, were measured on all subjects in the men's survey.

Measurements on the men were made, as we have already stated, with the subjects wearing fatigue pants. This clothing can be assumed to have had some effect on a number of the measurements, particularly weight, buttock height, popliteal height, buttock-knee length, back curvature-hip level, and hip circumference. The fatigue pants typically

## ARMY CORPS ANTHROPOMETRIC SURVEY BLANK - 1976/1977

(Please print all requested information)

Subject No. \_\_\_\_\_

Name \_\_\_\_\_ Date \_\_\_\_\_  
 (Last) (First) (Middle)

Rank \_\_\_\_\_ Location \_\_\_\_\_

MOS: Primary \_\_\_\_\_ Secondary \_\_\_\_\_

Length of Service \_\_\_\_\_ What is your primary duty? \_\_\_\_\_  
 (years) (months)

Age at Last Birthday \_\_\_\_\_ Command \_\_\_\_\_

Birthdate \_\_\_\_\_ Handedness: R L A  
 (year) (month) (day) (circle appropriate symbol)

Place of Estimated Nude Height \_\_\_\_\_ (inches)  
 Birth \_\_\_\_\_ Estimated Nude Weight \_\_\_\_\_ (pounds)

State (country if other than USA)

## GROUP I

(Standing) 32. Bispinous Breadth \_\_\_\_\_  
 1. Stature \_\_\_\_\_ 33. Knuckle Ht \_\_\_\_\_  
 2. Axilla Ht \_\_\_\_\_ 34. Gluteal Furrow Ht \_\_\_\_\_  
 3. Suprasternale Ht \_\_\_\_\_ 35. Trochanteric Ht \_\_\_\_\_  
 4. Chest Ht \_\_\_\_\_ 36. Tibiale Ht \_\_\_\_\_  
 5. Substernale Ht \_\_\_\_\_ 37. Hip Circ \_\_\_\_\_  
 6. Waist Ht/Natural \_\_\_\_\_ 38. Calf Circ \_\_\_\_\_  
 7. Waist Ht/Omphalion \_\_\_\_\_ 39. Ankle Circ \_\_\_\_\_  
 8. Elbow Ht \_\_\_\_\_ 40. Heel-Ankle Circ \_\_\_\_\_  
 9. Buttock Ht \_\_\_\_\_ 41. Foot Circ \_\_\_\_\_  
 10. Acromion-Radiale \_\_\_\_\_ 42. Sphyriion Ht \_\_\_\_\_  
 11. Radiale-Styliion \_\_\_\_\_ 43. Foot Length \_\_\_\_\_  
 12. Chest Depth \_\_\_\_\_ 44. Instep Length \_\_\_\_\_  
 45. Foot Breadth \_\_\_\_\_

(Seated on Table) 13. Sitting Ht \_\_\_\_\_  
 14. Eye Ht \_\_\_\_\_  
 15. Midshoulder Ht \_\_\_\_\_  
 16. Knee Ht \_\_\_\_\_  
 17. Popliteal Ht \_\_\_\_\_  
 18. Shoulder-Elbow Lgth \_\_\_\_\_  
 19. Elbow-Fingertip Lgth \_\_\_\_\_  
 20. Elbow-Center of Grip Lgth \_\_\_\_\_  
 21. Buttock-Knee Lgth \_\_\_\_\_  
 22. Biacromial Breadth \_\_\_\_\_

## GROUP II

(Seated) 23. Head Circumference \_\_\_\_\_  
 24. Head Length \_\_\_\_\_  
 25. Head Breadth \_\_\_\_\_  
 26. Hand Circumference \_\_\_\_\_  
 27. Hand Breadth \_\_\_\_\_  
 28. Hand Length \_\_\_\_\_  
 29. Palm Length \_\_\_\_\_  
 30. Abdominal Ext Depth \_\_\_\_\_  
 31. Thigh-to-Thigh Breadth \_\_\_\_\_

(Standing on Table) 32. Bispinous Breadth \_\_\_\_\_  
 33. Knuckle Ht \_\_\_\_\_  
 34. Gluteal Furrow Ht \_\_\_\_\_  
 35. Trochanteric Ht \_\_\_\_\_  
 36. Tibiale Ht \_\_\_\_\_  
 37. Hip Circ \_\_\_\_\_  
 38. Calf Circ \_\_\_\_\_  
 39. Ankle Circ \_\_\_\_\_  
 40. Heel-Ankle Circ \_\_\_\_\_  
 41. Foot Circ \_\_\_\_\_  
 42. Sphyriion Ht \_\_\_\_\_  
 43. Foot Length \_\_\_\_\_  
 44. Instep Length \_\_\_\_\_  
 45. Foot Breadth \_\_\_\_\_

## GROUP III

46. Weight \_\_\_\_\_  
 47. Biceps Circ, Relaxed \_\_\_\_\_  
 48. Biceps Circ, Flexed \_\_\_\_\_  
 49. Sleeve Inseam \_\_\_\_\_  
 50. Sleeve Outseam \_\_\_\_\_  
 51. Shoulder Circ \_\_\_\_\_  
 52. Chest Circ \_\_\_\_\_  
 53. Waist Circ/Natural \_\_\_\_\_  
 54. Waist Circ/Omphalion \_\_\_\_\_  
 55. Interscye Front \_\_\_\_\_  
 56. Waist Front \_\_\_\_\_  
 57. Interscye Back \_\_\_\_\_  
 58. Waist Back \_\_\_\_\_  
 59. Back Curvature, Chest Level \_\_\_\_\_  
 60. Back Curvature, Waist Level \_\_\_\_\_  
 61. Back Curvature, Hip Level \_\_\_\_\_

Figure 1. The survey blank: core and subseries 1 measurements.

weigh about one kilogram; the user of these data who wishes to do so can subtract this amount from the mean and percentiles given here for weight. The effect of the clothing on the other measurements was judged to be within the accuracy of measurement. All unilateral measurements were made on the subject's right side.

Definitions of the measurements follow. The basic summary statistics are given in Table 4. In Table 4, the mean, the standard deviation, and the percentile values for weight are shown in pounds in the upper line and in kilograms in the lower line. For all other measurements, the mean, the standard deviation, and the percentile values are shown in centimeters in the upper line and in inches in the lower line.

Additional statistics are included in Appendix A, frequency tables in Appendix B, and XVAL computer printouts in Appendix C. Illustrations of these measurements have been provided in both the first and second reports of this series and thus are not repeated here.

## DEFINITIONS FOR THE CORE-SUBSERIES 1 MEASUREMENTS

WEIGHT: Weight of subject wearing fatigue pants.

STATURE: The vertical distance from the floor to the top of the head.

AXILLA HEIGHT: The vertical distance from the floor to the center of the armpit.

SUPRASTERNALE HEIGHT: The vertical distance from the floor to supra-sternale, the lowest point of the notch in the upper edge of the breastbone.

CHEST HEIGHT: The vertical distance from the floor to the tip of the nipples.

SUBSTERNALE HEIGHT: The vertical distance from the floor to sub-sternale, the midpoint of the lower edge of the breastbone.

ELBOW (RADIALE) HEIGHT: The vertical distance from the floor to radiale, the depression between the humerus and the radius.

KNUCKLE HEIGHT: The vertical distance from the floor to the largest knuckle where the first phalanx of the middle finger joins the palm.

WAIST HEIGHT (NATURAL): The vertical distance from the floor to the natural waist level.

BUTTOCK HEIGHT: The vertical distance from the floor to the point of maximum protrusion of the buttock.

GLUTEAL FURROW HEIGHT: The vertical distance from the floor to the furrow where the gluteal curve intersects the back of the thigh.

TIBIALE HEIGHT: The vertical distance from the floor to the proximal medial margin of the shin bone.

ACROMION-RADIALE LENGTH: The distance, parallel to the axis of the upper arm, from the tip of the shoulder blade to the uppermost point of the radius.

RADIALE-STYLIUM LENGTH: The distance, parallel to the axis of the forearm, from the uppermost point of the radius to the most distal point of the styloid process of the radius.

**SITTING HEIGHT:** The vertical distance from the sitting surface to the top of the head.

**EYE HEIGHT, SITTING:** The vertical distance from the sitting surface to the outer corner of the eye.

**SHOULDER-ELBOW LENGTH:** The vertical distance from acromion, the lateral edge of the acromial process of the shoulder, to the underside of the elbow, measured with the upper arms relaxed and the forearms and hands extended forward and horizontally.

**ELBOW GRIP LENGTH:** The distance parallel to the axis of the forearm from the tip of the elbow to the midpoint of the fist measured with the upper arm hanging relaxed, the forearm extended forward, and the hand grasping the fixed blade of a beam caliper.

**ELBOW-FINGERTIP LENGTH:** The distance from the tip of the right elbow to the tip of the middle finger, measured with the upper arm hanging relaxed, the forearm and hand extended forward and horizontally.

**KNEE HEIGHT, SITTING:** The vertical distance from the footrest surface to a point on the thigh five centimeters proximal to the anterior surface of the patella.

**POPLITEAL HEIGHT:** The vertical distance from the footrest surface to the lateral underside of the thigh where the tendon of the biceps femoris joins the lower leg.

**BUTTOCK-KNEE LENGTH:** The horizontal distance from the most posterior protrusion of the buttock to the most anterior point of the kneecap.

**CHEST DEPTH:** The depth of the torso at nipple level.

**WAIST DEPTH:** The anterior-posterior depth of the torso at the level of the waist.

**BIACROMIAL BREADTH:** The horizontal distance between the lateral edges of the acromial processes of the shoulders.

**SHOULDER CIRCUMFERENCE:** The horizontal circumference of the shoulders measured at the level of the greatest lateral protrusion of the deltoid muscles.

**CHEST CIRCUMFERENCE:** The horizontal circumference of the trunk measured with the tape passing over the nipples.

WAIST CIRCUMFERENCE (NATURAL); The horizontal circumference of the waist at the 'natural' waist level.

WAIST CIRCUMFERENCE (OMPHALION): The horizontal circumference of the waist at the level of the midpoint of the navel.

HIP CIRCUMFERENCE: The maximum circumference of the hips at the level of the maximum posterior protrusion of the buttocks, measured over fatigue pants.

BICEPS CIRCUMFERENCE, RELAXED: The circumference of the arm at the biceps level measured in a plane perpendicular to the long axis of the upper arm.

BICEPS CIRCUMFERENCE, FLEXED: The circumference of the arm at the level of the maximal protrusion of the biceps, measured with the elbow flexed 90 degrees, the upper arm horizontal, and the fist tightly clenched.

CALF CIRCUMFERENCE: The maximum circumference of the calf.

ANKLE CIRCUMFERENCE: The minimum circumference of the ankle.

INTERSCYE BACK: The surface distance across the back of the torso between points midway between the posterior edges of the armpits and the acromiale points.

INTERSCYE FRONT: The surface distance across the front of the torso between points midway between the anterior edges of the armpit and the acromiale points.

BACK CURVATURE-CHEST LEVEL: The surface distance across the back between the midaxillary lines at the level of the nipples.

BACK CURVATURE-WAIST LEVEL: The surface distance across the back between the midaxillary lines at waist level.

BACK CURVATURE-HIP LEVEL: The surface distance across the back between the midaxillary lines at the level of the maximum protrusion of the buttocks.

WAIST BACK LENGTH: The surface distance from the waist to cervicale.

WAIST FRONT LENGTH: The surface distance from the waist to the anterior neck-torso juncture.

**SLEEVE INSEAM LENGTH:** The distance from the anterior edge of the armpit to the little finger side of the wrist, measured with the arm slightly abducted, the palm held forward, and the tape tense.

**SLEEVE OUTSEAM LENGTH:** The distance from acromiale to the thumb side of the wrist measured with the arm slightly abducted, the palm held forward, and the tape tense.

**HEAD CIRCUMFERENCE:** The maximum circumference of the head measured with the tape passing above the brow ridges and nuchale.

**HEAD LENGTH:** The maximum length of the head from the most anterior point between the brow ridges to the occiput.

**HEAD BREADTH:** The maximum breadth of the head above the level of the ears.

**HAND LENGTH:** The distance from the wrist crease to dactylion, measured parallel to the long axis of the hand.

**PALM LENGTH:** The distance from the wrist crease to the skin crease at the base of the third finger, measured parallel to the long axis of the hand.

**HAND BREADTH:** The breadth across the distal ends of the metacarpale bones.

**HAND CIRCUMFERENCE:** The circumference measured around the metacarpal-phalangeal joints.

**FOOT LENGTH:** The length of the foot measured parallel to its long axis.

**INSTEP LENGTH:** The distance measured parallel to the long axis of the foot, from the level of the heel to the point of maximum medial protuberance of the foot.

**FOOT BREADTH:** The maximum breadth of the foot as measured at right angles to its long axis.

**FOOT CIRCUMFERENCE:** The circumference of the foot as measured around the distal ends of the protuberances of the metatarsal bones.

**HEEL-ANKLE CIRCUMFERENCE:** The diagonal circumference of the foot measured with the tape passing under the tip of the heel and over the instep at the foot-leg junction.

**SPHYRION HEIGHT:** The height of the most distal extension of the tibia on the inside of the foot.

**MIDSHOULDER HEIGHT:** The vertical distance from the seated surface to the point on the shoulder midway between acromion and the shoulder-neck intersection.

**WAIST HEIGHT (OMPHALION):** The vertical distance from the floor to the middle of the navel.

TABLE 4

BASIC SUMMARY STATISTICS  
THE CORE-SUBSERIES 1 MEASUREMENTS

MEAN	STD DEV	-V- -N-	-- THE PERCENTILES --										
			5TH	10TH	15TH	25TH	35TH	50TH	65TH	75TH	85TH	90TH	95TH
<b>1C WEIGHT</b>													
156.02	24.22	15.5%	122.4	130.1	133.5	138.1	143.4	151.3	161.2	172.6	183.5	192.7	200.2
70.77	10.98	287	55.5	59.0	60.6	62.7	65.0	68.6	73.1	78.3	83.2	87.4	90.8
<b>2C STATURE</b>													
174.07	6.82	3.9%	162.8	165.6	167.3	169.8	171.7	174.1	176.5	178.4	180.8	182.6	185.3
68.53	2.68	287	64.1	65.2	65.9	66.8	67.6	68.5	69.5	70.2	71.2	71.9	73.0
<b>4C AXILLA HEIGHT</b>													
131.24	5.89	4.5%	121.5	123.9	125.4	127.5	129.2	131.3	133.4	135.1	137.2	138.7	140.9
51.67	2.32	287	47.8	48.8	49.4	50.2	50.9	51.7	52.5	53.2	54.0	54.6	55.5
<b>2T SUPRASTERNALE HEIGHT</b>													
142.70	6.09	4.3%	132.6	135.0	136.6	138.8	140.5	142.7	145.0	146.7	148.9	150.4	152.7
50.18	2.40	287	52.2	53.2	53.8	54.6	55.3	56.2	57.1	57.8	58.6	59.2	60.1
<b>5C CHEST HEIGHT</b>													
127.43	5.67	4.5%	117.9	120.1	121.6	123.7	125.4	127.5	129.6	131.2	133.2	134.5	136.5
50.17	2.23	287	46.4	47.3	47.9	48.7	49.4	50.2	51.0	51.7	52.4	53.0	53.7
<b>3T SUBSTERNALE HEIGHT</b>													
122.57	5.49	4.5%	113.4	115.7	117.1	119.1	120.0	122.0	124.7	126.2	128.2	129.5	131.5
48.25	2.16	287	44.7	45.5	46.1	46.9	47.5	49.3	49.1	49.7	50.5	51.0	51.8
<b>4T ELBOW (RADIALE) HEIGHT</b>													
119.40	5.05	4.6%	101.0	103.0	104.3	106.1	107.5	109.4	111.3	112.7	114.5	115.0	117.8
43.07	1.99	287	39.8	40.6	41.1	41.8	42.3	43.1	43.8	44.4	45.1	45.6	46.4
<b>5T KNUCKLE HEIGHT</b>													
75.51	4.11	5.5%	68.8	70.3	71.3	72.8	73.9	75.5	77.0	78.2	79.7	80.7	82.2
29.73	1.62	287	27.1	27.7	28.1	28.7	29.1	29.7	30.3	30.8	31.4	31.8	32.4
<b>6C WAIST HEIGHT</b>													
104.12	5.75	5.5%	94.0	96.6	98.0	100.1	101.8	104.1	106.4	108.1	110.2	111.6	113.6
40.99	2.26	287	37.2	38.0	38.6	39.4	40.1	41.0	41.9	42.6	43.4	43.9	44.7
<b>8C BUTTOCK HEIGHT</b>													
89.41	5.07	5.7%	80.8	82.8	84.1	86.1	87.6	89.5	91.4	92.8	94.5	95.7	97.6
39.24	2.06	287	31.8	32.6	33.1	33.9	34.5	35.3	36.0	36.5	37.2	37.7	38.4

TABLE 4  
BASIC SUMMARY STATISTICS  
THE CORE-SUBSERIES 1 MEASUREMENTS

MEAN	STD DEV	-V-	THE PERCENTILES - - -										
			-N-	5TH	10TH	15TH	25TH	35TH	50TH	65TH	75TH	85TH	90TH
<b>7T GLUTEAL FURROW HEIGHT</b>													
80.37	4.42	5.5%	73.3	74.8	75.8	77.3	78.6	80.3	81.9	83.2	84.9	86.0	87.7
31.64	1.74	2.87	28.8	29.4	29.8	30.2	30.9	31.6	32.3	32.8	33.4	33.9	34.5
<b>8T TIBIALE HEIGHT</b>													
48.31	2.77	5.7%	43.5	44.8	45.5	46.6	47.3	48.4	49.4	50.2	51.1	51.8	52.8
19.02	1.39	2.87	17.1	17.6	17.9	18.3	18.6	19.0	19.4	19.7	20.1	20.4	20.8
<b>9T ACROMION-RADIAL LENGTH</b>													
33.74	1.82	5.4%	30.8	31.4	31.9	32.5	33.0	33.7	34.4	35.0	35.7	36.1	36.8
13.28	.72	2.87	12.1	12.4	12.6	12.8	13.0	13.3	13.6	13.8	14.0	14.2	14.5
<b>10T RADIAL-STYLIUM LENGTH</b>													
26.84	1.57	5.9%	24.4	25.0	25.3	25.8	26.2	26.6	27.4	27.9	28.5	29.0	29.6
11.57	.62	2.87	9.6	9.8	10.0	10.2	10.3	10.5	10.8	11.0	11.2	11.4	11.7
<b>11C SITTING HEIGHT</b>													
89.34	3.63	4.1%	83.5	84.3	85.8	87.0	88.0	89.3	90.6	91.7	93.0	94.0	95.4
35.17	1.43	2.87	32.9	33.4	33.8	34.3	34.6	35.2	35.7	36.1	36.6	37.0	37.6
<b>12C EYE HEIGHT, SITTING</b>													
77.42	3.39	4.4%	72.0	73.3	74.1	75.3	76.1	77.3	78.6	79.6	80.5	81.8	83.2
30.48	1.34	2.87	28.3	28.9	29.2	29.6	30.0	30.4	30.9	31.3	31.8	32.2	32.8
<b>13C SHOULDER-ELBOW LENGTH</b>													
30.32	1.85	5.1%	33.3	34.0	34.5	35.1	35.6	36.3	37.0	37.9	38.2	38.7	39.5
14.30	.73	2.87	13.1	13.4	13.6	13.8	14.0	14.3	14.6	14.8	15.1	15.2	15.5
<b>11T ELBOW-GRIP LENGTH</b>													
34.97	1.96	5.6%	31.7	32.5	33.0	33.7	34.2	35.0	35.7	36.2	36.9	37.5	38.3
13.77	.77	2.87	12.5	12.8	13.0	13.3	13.5	13.8	14.1	14.3	14.5	14.8	15.1
<b>14C ELBOW-FINGER-TIP LENGTH</b>													
47.77	2.47	5.2%	43.0	44.9	45.4	46.2	46.9	47.7	48.5	49.4	50.3	51.0	52.0
13.81	.97	2.87	17.0	17.7	17.9	18.2	18.4	18.8	19.1	19.4	19.8	20.1	20.5
<b>15C KNEE HEIGHT, SITTING</b>													
52.10	3.02	5.5%	50.2	51.4	52.1	53.2	54.0	55.1	56.2	57.1	58.2	59.0	60.2
21.69	1.19	2.87	19.8	20.2	20.5	20.9	21.3	21.7	22.1	22.5	22.9	23.2	23.7

TABLE 4

BASIC SUMMARY STATISTICS  
THE CORE-SUBSERIES 1 MEASUREMENTS

MEAN	STD DEV	-N-	--- THE PERCENTILES ---											
			5TH	10TH	15TH	25TH	35TH	50TH	65TH	75TH	85TH	90TH	95TH	
<b>16C POPLITEAL HEIGHT</b>														
44.27	2.72	6.1%	39.7	40.8	41.5	42.5	43.3	44.3	45.3	46.1	47.1	47.7	48.7	
17.43	1.07	287	15.6	16.1	16.3	16.7	17.0	17.4	17.8	18.1	18.5	18.8	19.2	
<b>17C BUTTOCK-KNEE LENGTH</b>														
66.78	3.07	5.1%	55.7	56.8	57.6	58.7	59.6	60.8	62.0	62.9	64.0	64.8	65.8	
23.93	1.21	287	21.9	22.4	22.7	23.1	23.5	23.9	24.4	24.8	25.2	25.5	25.9	
<b>18C CHEST DEPTH</b>														
21.68	2.00	9.2%	18.9	19.4	19.7	20.2	20.6	21.4	22.2	23.0	23.9	24.6	25.5	
8.54	.79	287	7.5	7.6	7.8	7.9	8.1	8.4	8.8	9.0	9.4	9.7	10.1	
<b>19C WAIST DEPTH</b>														
26.29	2.25	11.1%	17.5	17.9	18.2	18.6	19.1	19.8	20.8	21.6	22.7	23.5	24.8	
7.99	.89	280	6.9	7.0	7.2	7.3	7.5	7.8	8.2	8.5	8.9	9.3	9.8	
<b>16T BIACROMIAL BREADTH</b>														
39.46	1.98	5.0%	36.1	36.9	37.4	38.1	38.7	39.5	40.3	40.9	41.5	42.0	42.6	
15.53	.78	287	14.2	14.5	14.7	15.0	15.3	15.6	15.9	16.1	16.4	16.5	16.8	
<b>25C SHOULDER CIRCUMFERENCE</b>														
115.92	6.14	5.5%	101.4	103.2	104.5	106.5	108.2	110.6	113.1	115.0	117.4	119.1	121.5	
43.67	2.42	287	39.9	40.6	41.1	41.9	42.6	43.5	44.5	45.3	46.2	46.9	47.8	
<b>27C CHEST CIRCUMFERENCE</b>														
92.90	6.00	7.1%	83.8	85.2	86.2	87.9	89.5	91.9	94.7	97.0	100.2	102.4	105.6	
36.58	2.60	287	33.0	33.0	34.0	34.6	35.2	36.2	37.3	38.2	39.4	40.3	41.6	
<b>29C WAIST CIRCUMFERENCE</b>														
70.08	8.04	10.2%	68.8	70.2	71.1	72.8	74.4	76.9	80.1	82.9	86.8	89.8	94.5	
36.97	3.17	287	27.1	27.6	28.0	28.7	29.3	30.3	31.5	32.6	34.2	35.3	37.2	
<b>19T WAIST CIRCUMFERENCE, OMPHALION</b>														
70.07	8.29	16.5%	68.4	70.4	71.7	73.4	74.8	76.5	79.5	83.1	87.0	91.5	95.9	
31.07	3.27	287	26.9	27.7	28.2	28.9	29.4	30.1	31.3	32.7	34.3	36.0	37.8	
<b>30C HIP CIRCUMFERENCE</b>														
95.14	6.04	6.4%	87.3	88.3	89.1	90.5	91.9	94.1	96.7	98.8	101.7	103.8	106.9	
37.40	2.38	287	34.4	34.8	35.1	35.6	36.2	37.0	38.1	38.9	40.1	40.9	42.1	

TABLE 4  
BASIC SUMMARY STATISTICS  
THE CORE-SUBSERIES 1 MEASUREMENTS

MEAN	STD	-V-	--- THE PERCENTILES ---											
			-N-	5TH	10TH	15TH	25TH	35TH	50TH	65TH	75TH	85TH	90TH	95TH
<b>23T BICEPS CIRCUMFERENCE, RELAXED</b>														
29.16	2.77	9.5%	24.8	25.6	26.2	27.2	26.0	29.0	30.2	31.1	32.1	32.9	33.9	
14.48	1.09	287	9.8	10.1	10.3	10.7	11.0	11.4	11.9	12.2	12.7	12.9	13.4	
<b>33C BICEPS CIRCUMFERENCE, FLEXED</b>														
31.38	2.71	6.7%	27.0	27.9	28.5	29.4	30.2	31.3	32.4	33.2	34.3	35.0	36.0	
12.35	1.07	287	10.6	11.0	11.2	11.0	11.9	12.3	12.8	13.1	13.5	13.8	14.2	
<b>39C CALF CIRCUMFERENCE</b>														
35.83	2.80	7.8%	31.0	32.4	33.0	33.9	34.6	35.6	36.7	37.6	38.8	39.7	40.9	
14.10	1.10	287	12.4	12.8	13.0	13.3	13.6	14.0	14.5	14.6	15.3	15.6	16.1	
<b>40C ANKLE CIRCUMFERENCE</b>														
21.71	1.42	6.6%	19.3	19.8	20.2	20.7	21.2	21.7	22.3	22.7	23.1	23.5	24.3	
8.55	.50	287	7.0	7.3	7.9	8.2	8.3	8.6	8.8	8.9	9.1	9.2	9.5	
<b>42C INTERSCYE, BACK</b>														
41.02	2.81	6.9%	36.5	37.4	38.1	39.1	39.9	41.0	42.1	43.0	44.0	44.8	45.9	
16.15	1.11	287	14.4	14.7	15.0	15.4	15.7	16.1	16.6	16.9	17.3	17.6	18.1	
<b>43C INTERSCYE, FRONT</b>														
36.67	1.96	5.3%	33.5	34.1	34.6	35.3	35.8	36.6	37.4	38.0	38.8	39.3	40.1	
14.44	.77	287	13.2	13.4	13.6	13.9	14.1	14.4	14.7	15.0	15.3	15.5	15.8	
<b>44C BACK CURVATURE-CHEST</b>														
45.17	3.37	7.5%	40.5	41.2	41.7	42.6	43.4	44.7	46.1	47.3	48.9	50.0	51.5	
17.78	1.33	287	16.0	16.2	16.4	16.8	17.1	17.6	18.2	18.6	19.2	19.7	20.3	
<b>45C BACK CURVATURE-WAIST</b>														
38.96	4.28	11.0%	33.5	34.4	35.0	36.0	36.9	38.2	39.7	41.0	43.0	44.5	47.0	
12.34	1.68	287	13.2	13.6	13.8	14.2	14.5	15.0	15.6	16.2	16.9	17.5	18.5	
<b>46C BACK CURVATURE-HIP</b>														
46.57	3.13	6.7%	42.4	43.3	43.4	44.2	44.9	46.0	47.4	48.5	49.9	51.0	52.5	
18.33	1.23	287	16.7	16.9	17.1	17.4	17.7	18.1	18.7	19.1	19.7	20.1	20.7	
<b>47C WAIST BACK LENGTH</b>														
44.90	3.20	7.1%	39.6	40.7	41.5	42.6	43.6	44.9	46.2	47.1	48.4	49.2	50.3	
17.68	1.26	287	15.6	16.0	16.3	16.8	17.2	17.7	18.2	18.6	19.0	19.4	19.8	

TABLE 4  
BASIC SUMMARY STATISTICS  
THE CORE-SUBSERIES 1 MEASUREMENTS

MEAN	STD	-V-	-- THE PERCENTILES --											
			-N-	5TH	10TH	15TH	25TH	35TH	50TH	65TH	75TH	85TH	90TH	95TH
48C WAIST FRONT LENGTH														
16.16	3.43	7.4%	36.1	37.1	37.9	38.9	39.8	41.0	42.2	43.1	44.3	45.1	46.2	
16.16	1.19	2.87	14.2	14.6	14.9	15.3	15.7	16.1	16.6	17.0	17.4	17.7	18.2	
51C SLEEVE INSEAM LENGTH														
19.49	2.73	5.7%	43.9	44.9	45.5	46.4	47.2	48.2	49.2	50.1	51.1	51.8	52.9	
19.49	1.07	2.87	17.3	17.7	17.9	18.3	18.6	19.0	19.4	19.7	20.1	20.4	20.8	
52C SLEEVE OUTSEAM LENGTH														
23.14	3.23	5.5%	53.6	54.9	55.5	56.6	57.4	58.6	59.9	60.9	62.3	63.2	64.5	
23.14	1.27	2.87	21.2	21.0	21.9	22.3	22.6	23.1	23.6	24.0	24.5	24.9	25.4	
54C HEAD CIRCUMFERENCE														
22.05	1.03	2.9%	53.2	53.9	54.3	55.0	55.4	56.1	56.7	57.1	57.7	58.0	58.6	
22.05	.04	2.87	21.0	21.2	21.4	21.0	21.8	22.1	22.3	22.5	22.7	22.9	23.1	
55C HEAD BREADTH														
5.93	.54	3.6%	14.2	14.4	14.5	14.7	14.9	15.1	15.3	15.4	15.6	15.7	16.0	
5.93	.21	2.87	5.0	5.7	5.7	5.8	5.9	5.9	6.0	6.1	6.1	6.2	6.3	
56C HEAD LENGTH														
7.66	.47	3.6%	18.3	18.6	18.8	19.0	19.2	19.5	19.7	19.9	20.2	20.3	20.6	
7.66	.28	2.87	7.2	7.3	7.4	7.5	7.6	7.7	7.8	7.8	7.9	8.0	8.1	
57C PALM LENGTH														
4.23	.58	5.4%	9.8	10.0	10.2	10.4	10.5	10.8	11.0	11.2	11.4	11.5	11.7	
4.23	.23	2.87	3.9	3.9	4.0	4.1	4.1	4.2	4.3	4.4	4.5	4.5	4.6	
58C HAND BREADTH														
3.51	.43	4.8%	8.3	8.4	8.5	8.6	8.7	8.9	9.1	9.2	9.4	9.5	9.7	
3.51	.17	2.87	3.3	3.3	3.3	3.4	3.4	3.5	3.6	3.6	3.7	3.8	3.8	
59C HAND CIRCUMFERENCE														
8.31	1.10	4.7%	19.5	19.9	20.1	20.5	20.7	21.1	21.5	21.8	22.2	22.4	22.8	
8.31	.39	2.87	7.7	7.8	7.9	8.1	8.2	8.3	8.5	8.6	8.7	8.8	9.0	
60C HAND LENGTH														
7.48	.39	5.2%	17.4	17.6	18.0	18.3	18.6	19.0	19.4	19.7	20.1	20.3	20.6	
7.48	.39	2.87	6.9	7.0	7.1	7.2	7.3	7.5	7.6	7.8	7.9	8.0	8.1	

TABLE 4

BASIC SUMMARY STATISTICS  
THE CORE-SUBSERIES 1 MEASUREMENTS

MEAN	STD DEV	-V- -N-	-- THE PERCENTILES --										
			5TH	10TH	15TH	25TH	35TH	50TH	65TH	75TH	85TH	90TH	95TH
<b>61C INSTEP LENGTH</b>													
19.71	1.18	6.0%	17.7	18.2	18.5	18.9	19.2	19.7	20.2	20.5	21.0	21.2	21.7
7.76	.46	286	7.0	7.2	7.3	7.4	7.6	7.8	7.9	8.1	8.3	8.4	8.5
<b>62C FOOT LENGTH</b>													
26.76	1.33	5.0%	24.5	25.1	25.4	25.9	26.2	26.8	27.3	27.7	28.2	28.5	28.9
14.53	.52	286	9.7	9.9	10.0	10.2	10.3	10.5	10.8	11.0	11.1	11.2	11.4
<b>63C HEEL-ANKLE CIRCUMFERENCE</b>													
34.02	1.74	5.1%	31.3	31.9	32.3	32.9	33.3	33.9	34.6	35.2	35.9	36.4	37.0
13.39	.69	287	12.3	12.6	12.7	12.9	13.1	13.4	13.6	13.8	14.1	14.3	14.6
<b>64C FOOT BREADTH</b>													
9.92	.56	5.7%	9.0	9.2	9.4	9.6	9.7	9.9	10.1	10.3	10.5	10.7	10.9
3.90	.22	286	3.6	3.6	3.7	3.8	3.8	3.9	4.0	4.1	4.1	4.2	4.3
<b>66C FOOT CIRCUMFERENCE</b>													
25.15	1.29	5.1%	23.2	23.6	23.9	24.3	24.6	25.1	25.6	26.0	26.6	26.9	27.4
9.90	.51	287	9.1	9.3	9.4	9.6	9.7	9.9	10.1	10.2	10.5	10.6	10.8
<b>69C SPHYRION HEIGHT</b>													
7.38	.61	8.3%	6.4	6.6	6.7	7.0	7.2	7.4	7.6	7.8	8.0	8.2	8.4
2.91	.24	286	2.5	2.6	2.7	2.7	2.8	2.9	3.0	3.1	3.2	3.2	3.3
<b>23T WAIST HEIGHT, OMPHALION</b>													
105.47	5.27	5.0%	96.6	98.8	100.1	102.0	103.5	105.4	107.4	109.0	111.0	112.3	114.2
41.52	2.07	287	38.3	38.9	39.4	40.2	41.7	41.5	42.3	42.9	43.7	44.2	45.0
<b>30T MIDSHOULDER HT/SIT</b>													
61.39	3.03	4.9%	56.0	57.7	58.4	59.4	60.2	61.3	62.5	63.4	64.6	65.4	66.6
24.17	1.19	287	22.3	22.7	23.0	23.4	23.7	24.1	24.6	25.0	25.4	25.7	26.2

CHAPTER II  
SUBSERIES 2: THE WORKSPACE MEASUREMENTS

The 14 workspace measurements which constituted subseries 2 were measured on a sample of 106 men. There were no differences in the measurements or the measurement procedures from those used in the women's survey. Subjects were fully clothed in all instances. For the men, clothing always consisted of fatigues and boots. The measurements in this series are listed on its survey blank, Figure 2.

Like the total sample, the workspace subsample consisted mainly of trainees, over four-fifths with ratings of E-1. The subsample was almost two-thirds White and about one-third Black, and like the full sample, had a median age rather close to 19 years. The following figures provide a comparison of the statures and weights of the total sample and this subsample:

	<u>Workspace Subsample</u>	<u>Total Sample</u>
Weight	$\bar{X} = 69.66 \sigma = 9.85$ (kg)	$\bar{X} = 70.92 \sigma = 11.01$ (kg)
Stature	$\bar{X} = 174.06 \sigma = 6.44$ (cm)	$\bar{X} = 174.07 \sigma = 6.82$ (cm)

Definitions of these measurements appear on the following pages. Summary statistics are given in Table 5. In Table 5, the mean, the standard deviation, and the percentile values for weight are shown in pounds in the upper line and in kilograms in the lower line. For all other measurements, the mean, the standard deviation, and the percentile values are shown in centimeters in the upper line and in inches in the lower line.

Additional statistics are included in Appendix A, frequency tables in Appendix B, and XVAL computer printouts in Appendix C. Illustrations of these measurements have been provided in both the first and second reports of this series and thus are not repeated here.

ARMY CORPS ANTHROPOMETRIC SURVEY BLANK - 1976/1977

(Please print all requested information)

Subject No. \_\_\_\_\_

Social Security No. \_\_\_\_\_

Name \_\_\_\_\_

(Last) \_\_\_\_\_

(First) \_\_\_\_\_

(Middle) \_\_\_\_\_

Location \_\_\_\_\_

Shoes \_\_\_\_\_

Boots \_\_\_\_\_

Sub-Series #2

Anthropometry of Working Positions

1. Weight \_\_\_\_\_
2. Stature \_\_\_\_\_
3. Functional Reach \_\_\_\_\_
4. Functional Reach, Extended \_\_\_\_\_
5. Overhead Reach Height \_\_\_\_\_
6. Overhead Reach Breadth \_\_\_\_\_
7. Bent Torso Height \_\_\_\_\_
8. Bent Torso Breadth \_\_\_\_\_
9. Overhead Reach, Sitting \_\_\_\_\_
10. Functional Leg Length \_\_\_\_\_
11. Kneeling Height \_\_\_\_\_
12. Kneeling Leg Length \_\_\_\_\_
13. Bent Knee Height, Supine \_\_\_\_\_
14. Horizontal Length, Knees Bent \_\_\_\_\_


15. \_\_\_\_\_


16. \_\_\_\_\_

17. \_\_\_\_\_

18. \_\_\_\_\_

Figure 2. The survey blank: workspace subseries.

## DEFINITIONS FOR THE WORKSPACE MEASUREMENTS

**OVERHEAD REACH HEIGHT:** The vertical distance from the floor to the highest point on the first phalanges when the subject stands 15 centimeters in from the wall, his arms extended overhead, fists together and against the wall and the first phalanges horizontal.

**FUNCTIONAL REACH:** The horizontal distance from the wall to the tip of the thumb measured with the subject's back against the wall, his arm horizontal, and the tip of the index finger touching the palm of the thumb.

**FUNCTIONAL REACH, EXTENDED:** The distance from the wall to the tip of the right thumb measured with the left shoulder in firm contact with the wall, the right shoulder extended as far as possible, the arm held horizontal and the tip of the index finger touching the palm of the thumb.

**OVERHEAD REACH, SITTING:** The height of the tip of the middle finger above the sitting surface measured with the subject sitting erect, his right side against a wall, left hand in his lap, his right arm and hand extended upward and his palm against the wall.

**FUNCTIONAL LEG LENGTH:** The distance along the main axis of the leg from the bottom of the foot to the posterior torso surface, measured with the leg extended and the knee straightened using an anthropometer whose base is in firm contact with the foot's plantar surface.

**WEIGHT (CLOTHED):** The weight of the subject wearing normal indoor apparel.

**STATURE (CLOTHED):** The distance from the floor to the top of the head measured with the subject wearing normal indoor apparel.

**OVERHEAD REACH BREADTH:** The maximum breadth across the arms or shoulders, whichever is wider, measured as the subject stands with his toes 15 centimeters from a wall, his arms extended overhead, fists touching each other and against the wall, and the first phalanges horizontal.

**BENT TORSO HEIGHT:** The distance from the floor to the top of the head measured as the subject stands, his feet 12 inches apart, the palms of his hands on his kneecaps, and his head as close to the Frankfort plane as possible.

**BENT TORSO BREADTH:** The maximum breadth of the shoulders measured as the subject stands, his feet 12 inches apart, the palms of his hands on his kneecaps, and his head as close to the Frankfort plane as possible.

**KNEELING HEIGHT:** The distance from the floor to the top of the head measured as the subject kneels with his toes extended and touching a wall, his torso erect, his arms hanging loosely, and his head in a Frankfort plane.

**KNEELING LEG LENGTH:** The distance measured as the subject kneels, his toes extended and touching a wall, and his torso erect from the wall to the anterior portion of the knee.

**BENT KNEE HEIGHT:** The height of the highest point on the knee when the subject lies supine, his knees raised so that the angle between the upper and lower legs approximates 60 degrees and his toes touch a wall.

**HORIZONTAL LENGTH, KNEES BENT:** The distance from vertex to the tip of the toes when the subject lies supine, his knees raised so that the angle between the upper and lower legs approximates 60 degrees and his toes touch a wall.

TABLE 5  
BASIC SUMMARY STATISTICS  
THE WORK SPACE MEASUREMENTS

MEAN	STD	-V-	-N-	- - - THE PERCENTILES - - -									
				5TH	10TH	15TH	25TH	35TH	50TH	65TH	75TH	85TH	90TH
<b>1W OVERHEAD REACH HEIGHT</b>													
215.10	9.42	4.4%	200.4	203.5	205.7	208.8	211.5	215.1	218.8	221.6	225.1	227.4	230.5
84.69	3.71	106	78.9	80.1	81.0	82.2	83.3	84.7	86.1	87.2	88.6	89.5	90.8
<b>2W FUNCTIONAL REACH</b>													
79.75	4.12	5.2%	72.6	74.3	75.3	76.9	78.2	79.9	81.5	82.7	84.2	85.1	86.4
31.40	1.62	106	28.6	29.2	29.7	30.3	31.8	31.5	32.1	32.6	33.2	33.5	34.0
<b>3W FUNCTIONAL REACH EXTENDED</b>													
91.86	5.22	5.7%	84.2	85.5	86.5	88.0	89.4	91.4	93.6	95.4	97.6	99.1	101.2
36.17	2.06	106	33.2	33.7	34.0	34.7	35.2	36.0	36.9	37.6	38.4	39.0	39.8
<b>4W OVERHEAD REACH, SITTING</b>													
136.88	5.85	4.3%	127.9	130.4	131.8	133.5	134.9	136.7	138.0	140.3	142.6	144.3	146.9
53.89	2.30	106	50.3	51.3	51.9	52.6	53.1	53.8	54.6	55.2	56.1	56.8	57.9
<b>5W FUNCTIONAL LEG LENGTH</b>													
118.55	5.24	4.4%	110.6	111.4	112.2	114.8	116.6	118.6	120.6	122.0	123.8	125.6	127.7
46.67	2.06	106	43.5	43.9	44.2	45.2	45.9	46.7	47.0	48.0	48.7	49.5	50.3
<b>6W WEIGHT (CLOTHED)</b>													
159.10	21.83	13.7%	129.1	133.8	137.3	143.1	148.4	156.3	165.1	172.2	181.6	188.5	198.8
72.17	9.90	106	58.6	60.7	62.3	64.9	67.3	70.9	74.9	78.1	82.5	85.5	90.2
<b>7W STATURE (CLOTHED)</b>													
177.95	6.26	3.5%	168.5	170.6	171.9	173.3	175.5	177.6	180.4	182.1	184.3	186.2	189.0
74.06	2.46	106	66.4	67.2	67.7	68.2	69.1	69.9	71.0	71.7	72.6	73.3	74.4
<b>8W OVERHEAD REACH BREADTH</b>													
38.50	2.05	5.3%	35.2	35.9	36.4	37.1	37.7	38.5	39.3	39.9	40.6	41.1	41.9
15.16	.81	106	13.9	14.1	14.3	14.6	14.8	15.2	15.5	15.7	16.0	16.2	16.5
<b>9W BENT TORSO HEIGHT</b>													
137.28	7.27	5.3%	125.6	127.7	129.3	131.8	134.0	137.1	140.3	142.7	145.6	147.4	149.8
54.05	2.86	106	49.4	50.3	50.9	51.9	52.8	54.0	55.2	56.2	57.3	58.1	59.0
<b>10W BENT TORSO BREADTH</b>													
44.72	2.25	5.0%	40.9	42.0	42.6	43.4	44.0	44.8	45.5	46.1	46.9	47.4	48.3
17.61	.88	106	16.1	16.5	16.8	17.1	17.3	17.6	17.9	18.2	18.5	18.7	19.0

TABLE 5

BASIC SUMMARY STATISTICS  
THE WORK SPACE MEASUREMENTS

MEAN	STD DEV	-V- -N-	- - - THE PERCENTILES - - -										
			5TH	10TH	15TH	25TH	35TH	50TH	65TH	75TH	85TH	90TH	95TH
<b>11W KNEELING HEIGHT</b>													
129.19	4.56	3.5%	121.9	123.6	124.7	126.2	127.4	129.0	130.8	132.2	134.0	135.2	136.9
50.86	1.79	1.06	48.0	48.7	49.1	49.7	50.1	50.8	51.5	52.0	52.8	53.2	53.9
<b>12W KNEELING LEG LENGTH</b>													
69.36	3.64	5.3%	63.9	65.0	65.6	67.0	68.0	69.5	70.9	71.6	73.0	74.1	75.5
27.31	1.43	1.06	25.2	25.6	25.8	26.4	26.8	27.3	27.9	28.2	28.8	29.2	29.7
<b>13W BENT KNEE HEIGHT, SUPINE</b>													
49.06	2.69	5.5%	44.7	45.5	46.2	47.1	47.9	49.0	50.2	51.0	52.0	52.7	53.5
19.31	1.06	1.06	17.6	17.9	18.2	18.5	18.9	19.3	19.7	20.1	20.5	20.7	21.1
<b>14W HORIZONTAL LENGTH, KNEES BENT</b>													
161.20	6.71	4.2%	150.8	152.5	153.7	155.9	157.9	160.8	163.8	166.2	169.0	170.8	173.0
63.46	2.04	1.06	59.4	60.0	60.5	61.4	62.2	63.3	64.5	65.4	66.5	67.2	68.1
<b>1C WEIGHT-NUDE</b>													
153.24	21.67	14.1%	123.1	127.8	131.4	137.5	142.9	150.9	159.6	166.6	175.8	182.3	192.2
69.51	9.83	1.06	55.8	58.0	59.6	62.4	64.8	68.4	72.4	75.6	79.8	82.7	87.2
<b>2C STATURE-NUDE</b>													
174.89	6.44	3.7%	163.9	166.3	167.8	169.9	171.5	173.9	176.4	178.3	180.8	182.5	184.8
68.54	2.53	1.06	64.5	65.5	66.1	66.9	67.5	68.5	69.4	70.2	71.2	71.9	72.7

## CHAPTER IV

### SUBSERIES 3: THE HEAD AND FACE MEASUREMENTS

Thirty-four head and face measurements were made on a subsample of 102 men in addition to the three basic head measurements--head length, head breadth, and head circumference--which were made on the entire sample. Measurements and measurement techniques were the same for the men as for the women. The survey blank for this series (Figure 3) lists these 34 measurements.

The 102 men who constituted the subsample did not differ significantly from the total sample. The two groups were predominantly trainees and about 30 percent Black. The median age for each sample was close to 19 years. A comparison of the subsample and the full sample with respect to the basic head measurements is illustrated by the following figures:

	<u>Head and Face Subsample</u>	<u>Total Subsample</u>
Head Length	$\bar{X} = 19.48 \sigma = 0.65$ (cm)	$\bar{X} = 19.47 \sigma = 0.70$ (cm)
Head Breadth	$\bar{X} = 14.97 \sigma = 0.49$ (cm)	$\bar{X} = 15.06 \sigma = 0.54$ (cm)
Head Circumference	$\bar{X} = 55.88 \sigma = 1.55$ (cm)	$\bar{X} = 56.01 \sigma = 1.63$ (cm)

Half (16 out of 34) of the subseries measurements were made with the headboard illustrated in Figure 4. These provide vertical and horizontal coordinates relative to the top and the back of the head for five points in the profile: menton, subnasale, pronasale, sellion (the deepest point in the nasal root depression), and glabella (a point on the forehead between the brow ridges) and for two non-profile points: ectocanthus (the outer corner of the eye) and tragion (the cartilaginous notch just forward of the ear hole). The two other headboard measurements were the vertical distance to the point of contact of the lips in the profile plane (stomion) and the horizontal distance to the most posterior point in the profile plane of either lip.

Ten measurements were distances between points in the profile plane--crinion-menton, sellion-menton, sellion-subnasale--or breadths across the face--biocular, interpupillary, mouth, nose, face, bitragion, and minimum frontal. Four measurements were arc lengths measured from right tragion to left tragion with a tape which passed variously over the top of the head, across the forehead, under the chin, and under the jaw. A fifth arc length was measured across the head from front to back (glabella to nuchale). The remaining three measurements which had not been taken on most of the women were ear length, ear breadth and biauricular breadth.

ARMY CORPS ANTHROPOMETRIC SURVEY BLANK - 1976/1977

(Please print all requested information)

Subject No. \_\_\_\_\_

Social Security No. \_\_\_\_\_

Name \_\_\_\_\_

(Last) (First) (Middle)

Location \_\_\_\_\_

**Sub-Series #3**

**Head and Face**

(Headboard)						
1. Menton to Wall _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	17. Crinion-Menton _____	<input type="checkbox"/>	<input type="checkbox"/>
2. Stomion to Wall _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	18. Sellion-Menton _____	<input type="checkbox"/>	<input type="checkbox"/>
3. Subnasale to Wall _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	19. Sellion-Subnasale _____	<input type="checkbox"/>	<input type="checkbox"/>
4. Pronasale to Wall _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	20. Biocular Breadth _____	<input type="checkbox"/>	<input type="checkbox"/>
5. Sellion to Wall _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	21. Interpupillary Distance _____	<input type="checkbox"/>	<input type="checkbox"/>
6. Glabella to Wall _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	22. Mouth Breadth, Smiling _____	<input type="checkbox"/>	<input type="checkbox"/>
7. Ectocanthus to Wall _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	23. Nose Breadth _____	<input type="checkbox"/>	<input type="checkbox"/>
8. Tragion to Wall _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	24. Face Breadth _____	<input type="checkbox"/>	<input type="checkbox"/>
				25. Bitragion Breadth _____	<input type="checkbox"/>	<input type="checkbox"/>
9. Menton to Vertex _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	26. Minimum-Frontal Br _____	<input type="checkbox"/>	<input type="checkbox"/>
10. Stomion to Vertex _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	27. Sagittal Arc _____	<input type="checkbox"/>	<input type="checkbox"/>
11. Subnasale to Vertex _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	28. Bitragion-Coronal Arc _____	<input type="checkbox"/>	<input type="checkbox"/>
12. Pronasale to Vertex _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	29. Bitragion-Frontal Arc _____	<input type="checkbox"/>	<input type="checkbox"/>
13. Sellion to Vertex _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30. Bitragion-Menton Arc _____	<input type="checkbox"/>	<input type="checkbox"/>
14. Glabella to Vertex _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	31. Bitragion-Submandibular Arc _____	<input type="checkbox"/>	<input type="checkbox"/>
15. Ectocanthus to Vertex _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
16. Tragion to Vertex _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	32. Ear length _____	<input type="checkbox"/>	<input type="checkbox"/>
				33. Ear breadth _____	<input type="checkbox"/>	<input type="checkbox"/>
				34. Biauricular breadth _____	<input type="checkbox"/>	<input type="checkbox"/>

Figure 3. The survey blank: head and face subseries.



Figure 4. Headboard.

Definitions of the measurements appear in the following pages. Statistical summaries for the 34 measurements in this subseries and for the three basic head measurements (as measured on the subsample) appear in Table 6. In Table 6, the mean, the standard deviation, and the percentile values for each measurement are shown in centimeters in the upper line and in inches in the lower line.

Additional statistics are included in Appendix A, frequency tables in Appendix B, and XVAL computer printouts in Appendix C. Illustrations of these measurements have been provided in both the first and second reports of this series and thus are not repeated here.

#### DEFINITIONS FOR THE HEAD AND FACE MEASUREMENTS

SAGITTAL ARC: The distance over the top of the head from glabella (the most anterior point between the brow ridges) to nuchale (the lowest point palpable at the base of the occiput) measured with the tape as close to the scalp as possible.

BITRAGION-CORONAL ARC: The distance from right tragion (the notch just forward of the ear hole) to left tragion, measured across the top of the head.

BITRAGION-FRONTAL ARC: The distance from right tragion (the notch just forward of the ear hole) to left tragion, measured across the forehead.

BITRAGION-MENTON ARC: The distance from right tragion (the notch just forward of the ear hole) to left tragion, measured with the tape passing under the tip of the chin.

BITRAGION-SUBMANDIBULAR ARC: The distance from right tragion (the notch just forward of the ear hole) to left tragion, measured with the tape passing under the gonial angles of the jaw and over the jaw-neck juncture.

GLABELLA TO WALL: The distance from the most anterior point between the brow ridges to the coronal plane tangent to the back of the head.

SELLION TO WALL: The distance from the deepest point in the nasal root depression to the coronal plane tangent to the back of the head.

PRONASALE TO WALL: The distance from the tip of the nose to the coronal plane tangent to the back of the head.

SUBNASALE TO WALL: The distance from the base of the nasal septum to the coronal plane tangent to the back of the head.

LIP PROTRUSION TO WALL: The distance from the most anterior point of the lips to the coronal plane tangent to the back of the head.

MENTON TO WALL: The distance from the tip of the chin to the coronal plane tangent to the back of the head.

ECTOCANTHUS TO WALL: The distance from the outer corner of the eye to the coronal plane tangent to the back of the head.

TRAGION TO WALL: The distance from the cartilaginous notch just forward of the ear hole to the coronal plane tangent to the back of the head.

**BITRAGION BREADTH:** The breadth of the head between the notches just forward of the ear holes.

**HEAD HEIGHT (TRAGION-VERTEX):** The distance from the cartilaginous notch just forward of the ear hole to the level of the top of the head.

**ECTOCANTHUS TO VERTEX:** The distance from the outer corner of the eye to the level of the top of the head.

**GLABELLA TO VERTEX:** The distance from the most anterior point between the brow ridges to the top of the head.

**SELLION TO VERTEX:** The distance from the deepest point in the nasal root depression to the top of the head.

**PRONASALE TO VERTEX:** The distance from the tip of the nose to the top of the head.

**SUBNASALE TO VERTEX:** The distance from the base of the nasal septum to the level of the top of the head.

**STOMION TO VERTEX:** The distance from the point of contact of the lips in the midsagittal plane to the top of the head.

**MENTON TO VERTEX:** The distance from the tip of the chin to the level of the top of the head.

**FACE LENGTH (SELLION-MENTON):** The vertical distance from the deepest point in the nasal root depression to the tip of the chin.

**CRINION-MENTON:** The vertical distance from the tip of the chin to the midsagittal point of the hairline.

**MINIMUM FRONTAL BREADTH:** The breadth of the forehead between the greatest indentations of the temporal crests above the brow ridges.

**FACE BREADTH (BIZYGMATIC):** The breadth of the face across the zygomatic arches.

**BIOCULAR BREADTH:** The distance between the outer corners of the eyes.

**INTERPUPILLARY DISTANCE:** The distance between the centers of the pupils.

**NOSE LENGTH (SELLION-SUBNASALE):** The distance from the lowest point in the nasal root depression to the base of the nasal septum.

**NOSE BREADTH:** The maximum breadth of the nose.

**MOUTH BREADTH, SMILING:** The distance between the corners of the mouth, measured while the subject smiles broadly.

**EAR LENGTH:** The maximum length of the ear along its major axis.

**EAR BREADTH:** The maximum breadth of the ear in a plane perpendicular to its major axis.

**BIAURICULAR BREADTH:** The distance from the most lateral point of the right ear to the corresponding point of the left ear.

TABLE 6

BASIC SUMMARY STATISTICS  
THE HEAD AND FACE MEASUREMENTS

MEAN	STD	-W-	-N-	-- THE PERCENTILES --									
				5TH	10TH	15TH	25TH	35TH	50TH	65TH	75TH	85TH	90TH
<b>1H SAGITTAL ARC</b>													
34.80	1.50	4.3%	32.7	33.2	33.5	33.9	34.2	34.7	35.2	35.7	36.4	36.8	37.5
13.70	.59	102	12.9	13.1	13.2	13.3	13.5	13.7	13.9	14.1	14.3	14.5	14.8
<b>2H BITRAGION-CORONAL ARC</b>													
34.12	1.26	3.7%	31.9	32.4	32.7	33.2	33.6	34.2	34.7	35.1	35.5	35.7	36.1
13.43	.50	102	12.6	12.8	12.9	13.1	13.2	13.5	13.7	13.8	14.0	14.1	14.2
<b>3H BITRAGION-FRONTAL ARC</b>													
29.31	1.07	3.7%	27.6	28.0	28.2	28.6	28.9	29.3	29.7	30.1	30.5	30.7	31.1
11.54	.42	102	10.9	11.0	11.1	11.3	11.4	11.5	11.7	11.8	12.0	12.1	12.3
<b>4H BITRAGION-MENTON ARC</b>													
31.10	1.30	4.2%	29.0	29.4	29.6	30.1	30.5	31.1	31.7	32.2	32.5	32.7	33.1
12.24	.51	102	11.4	11.6	11.7	11.9	12.0	12.2	12.7	12.7	12.8	12.9	13.0
<b>5H BITRAGION-SUBMANDIBULAR ARC</b>													
28.63	1.28	4.5%	26.7	26.9	27.2	27.5	28.1	28.7	29.2	29.6	30.1	30.4	30.7
11.27	.51	102	10.5	10.6	10.7	10.8	11.1	11.3	11.5	11.7	11.9	12.0	12.1
<b>6H GLABELLA TO WALL</b>													
19.61	.71	3.7%	18.5	18.8	18.9	19.1	19.3	19.6	19.8	20.0	20.3	20.5	20.8
7.72	.28	102	7.3	7.4	7.5	7.5	7.6	7.7	7.8	7.9	8.0	8.1	8.2
<b>7H SELLION TO WALL</b>													
19.49	.70	3.6%	18.4	18.6	18.8	19.1	19.2	19.5	19.7	19.9	20.1	20.3	20.7
7.67	.28	102	7.2	7.3	7.4	7.5	7.6	7.7	7.8	7.8	7.9	8.0	8.1
<b>8H PRONASALE TO WALL</b>													
22.20	.75	3.4%	21.0	21.2	21.4	21.7	21.9	22.2	22.5	22.7	23.0	23.2	23.4
8.74	.29	102	8.3	8.4	8.4	8.5	8.6	8.7	8.9	8.9	9.1	9.1	9.2
<b>9H SUBNASALE TO WALL</b>													
20.87	.78	3.8%	19.6	19.9	20.1	20.3	20.6	20.9	21.1	21.3	21.6	21.8	22.2
8.22	.31	102	7.7	7.8	7.9	8.0	8.1	8.2	8.3	8.4	8.5	8.6	8.7
<b>10H LIP PROTRUSION TO WALL</b>													
20.91	1.00	4.8%	19.4	19.7	19.9	20.2	20.5	20.8	21.2	21.5	22.0	22.3	22.8
8.23	.39	102	7.7	7.8	7.9	8.0	8.1	8.2	8.4	8.5	8.6	8.8	9.0

TABLE 6  
BASIC SUMMARY STATISTICS  
THE HEAD AND FACE MEASUREMENTS

MEAN	STD DEV	-N-	5TH	10TH	15TH	-- THE PERCENTILES --							
						25TH	35TH	50TH	65TH	75TH	85TH	90TH	95TH
<b>11H MENTON TO NALL</b>													
20.22	1.11	5.5%	18.6	18.9	19.1	19.4	19.7	20.1	20.6	20.9	21.4	21.7	22.2
7.96	.44	102	7.3	7.4	7.5	7.6	7.8	7.9	8.1	8.2	8.4	8.5	8.7
<b>12H ECTOGANTHUS TO NALL</b>													
17.50	.75	4.3%	16.3	16.5	16.7	17.0	17.2	17.5	17.8	18.0	18.2	18.4	18.7
6.89	.29	102	6.4	6.5	6.6	6.7	6.8	6.9	7.0	7.1	7.2	7.3	7.4
<b>13H TRAGION TO NALL</b>													
10.32	.71	6.9%	9.2	9.4	9.6	9.9	10.0	10.3	10.6	10.8	11.1	11.3	11.5
6.06	.28	102	3.6	3.7	3.8	3.9	4.0	4.1	4.2	4.3	4.4	4.4	4.5
<b>14H BITRAGION BREADTH</b>													
13.50	.59	4.4%	12.5	12.7	12.9	13.1	13.3	13.5	13.8	13.9	14.1	14.3	14.5
5.32	.23	102	4.9	5.0	5.1	5.2	5.2	5.3	5.4	5.5	5.6	5.6	5.7
<b>15H HEAD HEIGHT (TRAGION-VERTEX)</b>													
13.39	.68	5.1%	12.3	12.5	12.7	13.0	13.2	13.4	13.6	13.8	14.0	14.2	14.4
5.27	.27	102	4.8	4.9	5.0	5.1	5.2	5.3	5.4	5.4	5.5	5.6	5.7
<b>16H ECTOGANTHUS TO VERTEX</b>													
11.04	.79	7.2%	9.8	10.1	10.2	10.5	10.7	11.0	11.3	11.6	11.9	12.1	12.4
4.35	.31	102	3.9	4.0	4.0	4.1	4.2	4.3	4.5	4.6	4.7	4.8	4.9
<b>17H GLABELLA TO VERTEX</b>													
7.90	.86	10.8%	6.5	6.8	6.9	7.3	7.5	7.9	8.3	8.6	8.9	9.0	9.4
3.11	.34	102	2.6	2.7	2.7	2.9	3.0	3.1	3.3	3.4	3.5	3.6	3.7
<b>18H SELLION TO VERTEX</b>													
9.66	1.00	10.3%	8.2	8.3	8.5	8.8	9.2	9.7	10.0	10.3	10.8	11.0	11.3
3.80	.39	102	3.2	3.3	3.3	3.5	3.6	3.6	3.9	4.1	4.2	4.3	4.5
<b>19H PRONASALE TO VERTEX</b>													
13.14	1.07	8.1%	11.6	11.8	12.0	12.3	12.6	13.0	13.5	13.9	14.3	14.6	15.1
5.17	.42	102	4.6	4.7	4.7	4.9	5.0	5.1	5.3	5.5	5.6	5.8	5.9
<b>20H SUBNASALE TO VERTEX</b>													
14.49	.95	6.6%	13.0	13.3	13.5	13.8	14.1	14.4	14.8	15.2	15.6	15.8	16.2
5.70	.38	102	5.1	5.2	5.3	5.4	5.5	5.7	5.8	6.0	6.1	6.2	6.4

TABLE 6

BASIC SUMMARY STATISTICS  
THE HEAD AND FACE MEASUREMENTS

MEAN	STD DEV	-V- -N-	--- THE PERCENTILES ---										
			5TH	10TH	15TH	25TH	35TH	50TH	65TH	75TH	85TH	90TH	95TH
<b>21H STOMION TO VERTEX</b>													
16.86	1.00	5.9%	15.4	15.7	15.8	16.1	16.4	16.8	17.2	17.5	18.0	18.3	18.7
6.64	.39	102	6.1	6.2	6.2	6.4	6.5	6.6	6.8	6.9	7.1	7.2	7.4
<b>22H MENTON TO VERTEX</b>													
21.34	1.00	4.7%	19.9	20.2	20.4	20.6	20.9	21.2	21.6	22.0	22.6	22.7	23.2
8.40	.39	102	7.8	7.9	8.0	8.1	8.2	8.4	8.5	8.7	8.8	8.9	9.1
<b>23H FACE LENGTH (SELLION-MENTON)</b>													
11.70	.68	5.8%	10.6	10.8	11.0	11.2	11.4	11.7	12.0	12.2	12.5	12.6	12.8
4.61	.27	102	4.2	4.3	4.3	4.4	4.5	4.6	4.7	4.8	4.9	5.0	5.1
<b>24H CRINION-MENTON</b>													
18.52	.85	4.6%	17.1	17.4	17.6	18.0	18.2	18.6	18.9	19.1	19.4	19.6	19.9
7.29	.33	102	6.7	6.9	6.9	7.1	7.2	7.3	7.4	7.5	7.6	7.7	7.8
<b>25H MINIMUM FRONTAL BREADTH</b>													
11.13	.80	7.2%	9.9	10.1	10.2	10.5	10.8	11.2	11.5	11.8	12.1	12.2	12.4
4.38	.32	102	3.9	4.0	4.0	4.1	4.2	4.4	4.5	4.6	4.8	4.8	4.9
<b>26H FACE BREADTH (BIZYGMATIC)</b>													
13.75	.52	3.8%	12.8	13.0	13.2	13.4	13.6	13.8	14.0	14.2	14.3	14.4	14.5
5.42	.21	102	5.0	5.1	5.2	5.3	5.4	5.4	5.5	5.6	5.6	5.7	5.7
<b>27H BIOMATIC BREADTH</b>													
10.12	.49	4.9%	9.3	9.5	9.6	9.8	10.0	10.1	10.3	10.5	10.6	10.7	10.9
3.98	.19	102	3.7	3.7	3.8	3.9	3.9	4.0	4.1	4.1	4.2	4.2	4.3
<b>28H INTERPUPILLARY DISTANCE</b>													
5.89	.48	8.2%	5.1	5.3	5.4	5.5	5.7	5.9	6.1	6.2	6.4	6.5	6.7
2.32	.19	102	2.0	2.1	2.1	2.2	2.3	2.3	2.4	2.4	2.5	2.6	2.6
<b>29H NOSE LENGTH (SELLION-SUBNASALE)</b>													
4.97	.36	7.2%	4.4	4.5	4.6	4.7	4.8	4.9	5.1	5.2	5.4	5.5	5.6
1.96	.14	102	1.8	1.8	1.8	1.9	1.9	1.9	2.0	2.1	2.1	2.2	2.2
<b>30H NOSE BREADTH</b>													
3.72	.47	12.8%	3.0	3.1	3.2	3.4	3.5	3.7	3.9	4.1	4.3	4.4	4.6
1.46	.19	102	1.2	1.2	1.3	1.3	1.4	1.4	1.5	1.6	1.7	1.7	1.8

TABLE 6  
BASIC SUMMARY STATISTICS  
THE HEAD AND FACE MEASUREMENTS

MEAN	STD DEV	-N-	-- THE PERCENTILES --											
			5TH	10TH	15TH	25TH	35TH	50TH	65TH	75TH	85TH	90TH	95TH	
31H MOUTH BREADTH, SMILING														
5.47	.72	11.1%	5.4	5.5	5.7	5.9	6.1	6.4	6.8	7.0	7.3	7.5	7.7	
2.55	.28	102	2.1	2.2	2.2	2.3	2.4	2.5	2.7	2.8	2.9	2.9	3.1	
32H EAR LENGTH														
6.22	.44	7.1%	5.5	5.7	5.8	6.0	6.1	6.2	6.4	6.5	6.7	6.8	6.9	
2.45	.17	102	2.2	2.2	2.3	2.3	2.4	2.5	2.5	2.6	2.6	2.7	2.7	
33H EAR BREADTH														
7.34	.36	8.4%	3.8	3.9	4.0	4.1	4.2	4.3	4.5	4.6	4.7	4.8	5.0	
1.71	.14	102	1.5	1.5	1.6	1.6	1.7	1.7	1.8	1.8	1.9	1.9	2.0	
34H BIAURICULAR BREADTH														
17.87	.87	4.9%	16.5	16.8	17.0	17.3	17.5	17.8	18.2	18.4	18.6	19.0	19.4	
7.04	.34	102	6.5	6.6	6.7	6.8	6.9	7.0	7.2	7.3	7.4	7.5	7.6	
54C HEAD CIRCUMFERENCE														
55.67	1.55	2.8%	53.4	53.9	54.3	54.8	55.3	55.8	56.4	56.9	57.5	57.9	58.4	
22.30	.61	102	21.0	21.2	21.4	21.6	21.8	22.0	22.2	22.4	22.6	22.8	23.0	
55C HEAD BREADTH														
14.97	.49	3.3%	14.1	14.2	14.4	14.7	14.8	15.0	15.2	15.3	15.5	15.6	15.7	
5.90	.19	102	5.6	5.6	5.7	5.8	5.8	5.9	6.0	6.0	6.1	6.2	6.2	
56C HEAD LENGTH														
19.48	.65	3.4%	18.5	18.7	18.9	19.1	19.2	19.4	19.7	19.9	20.2	20.3	20.6	
7.07	.26	102	7.3	7.4	7.4	7.5	7.6	7.7	7.8	7.8	7.9	8.0	8.1	

Chapter V

SUBSERIES 4: STATIC STRENGTH MEASUREMENTS

A sample of 102 men served as subjects for a series of static strength measurements made with a University of Michigan strength monitor (Figure 5). Nine sets of measurements, listed on the survey blank shown in Figure 6, were made twice on each subject, yielding both mean and peak strength values. Four of the measurements were two-handed exertions, the subject standing and the handle being located at 38 centimeters, 50 centimeters, 100 centimeters, and 150 centimeters above the floor. Two additional two-handed measurements were made with the subject seated and the handle at 38 centimeters or 50 centimeters above the floor. All six of these measurements were made with the rope in the midsagittal plane. The other three measurements were one-handed pulls--the subject used whichever arm he reported as being his dominant one. One was a pull with the subject standing, with the D-ring 100 centimeters above the floor and on the subject's side. The remaining two were both made with the subject seated and the D-ring 45 centimeters above the floor, one with the grip at the subject's side and the other with it in the midsagittal plane.

The subjects were generally run in pairs or, occasionally, three's. When this was done, at each position both (or all three) made their first efforts after which, in the same subject sequence, they made their second efforts. This procedure provided a reasonable time for the subject to relax between efforts without adding to the total time needed for each subject. The measurements were not, as a rule, made in the sequence shown on the survey blank. Rather, at the completion of each subject's or group of subjects' measurements, the handle or D-ring was not changed and the next subject began with the arrangement with which the last subject finished. In addition to saving some time and effort, this procedure can be assumed to have spread out over the series of measurements much of the effects of novelty and weariness.

The mean values were obtained by integrating the measured exertion over a three-second period starting two seconds after the monitor sensed a force of 10 pounds (4.5 kilograms). The peak values for each subject were the maximum forces noted during each of the two periods in which a force was being exerted.

In reporting the strength data, the conventional units of kilograms and pounds have been used. However, in accordance with the International System of Units, generally known as SI, the correct unit for reporting kilograms or pounds of force is the newton. The kilogram-force values reported here may be converted to newtons by multiplying by 9.806, while the pound-force values may be converted to newtons by multiplying by 4.448.

Definitions of the strength measurements appear on the following pages. Statistics for these measurements are given in Table 7, with frequency tables in Appendix B, and XVAL printouts in Appendix C.

Fifteen of the subjects were left-handed. One subject reported he was ambidextrous; he was tested using his right arm for the single arm exertions. The subsample for this series was, as were the other subsamples, mainly trainees with a median age of approximately 19 years. Thirty-two (31%) were Blacks, 67 (66%) Whites, and 3 (3%) Orientals.

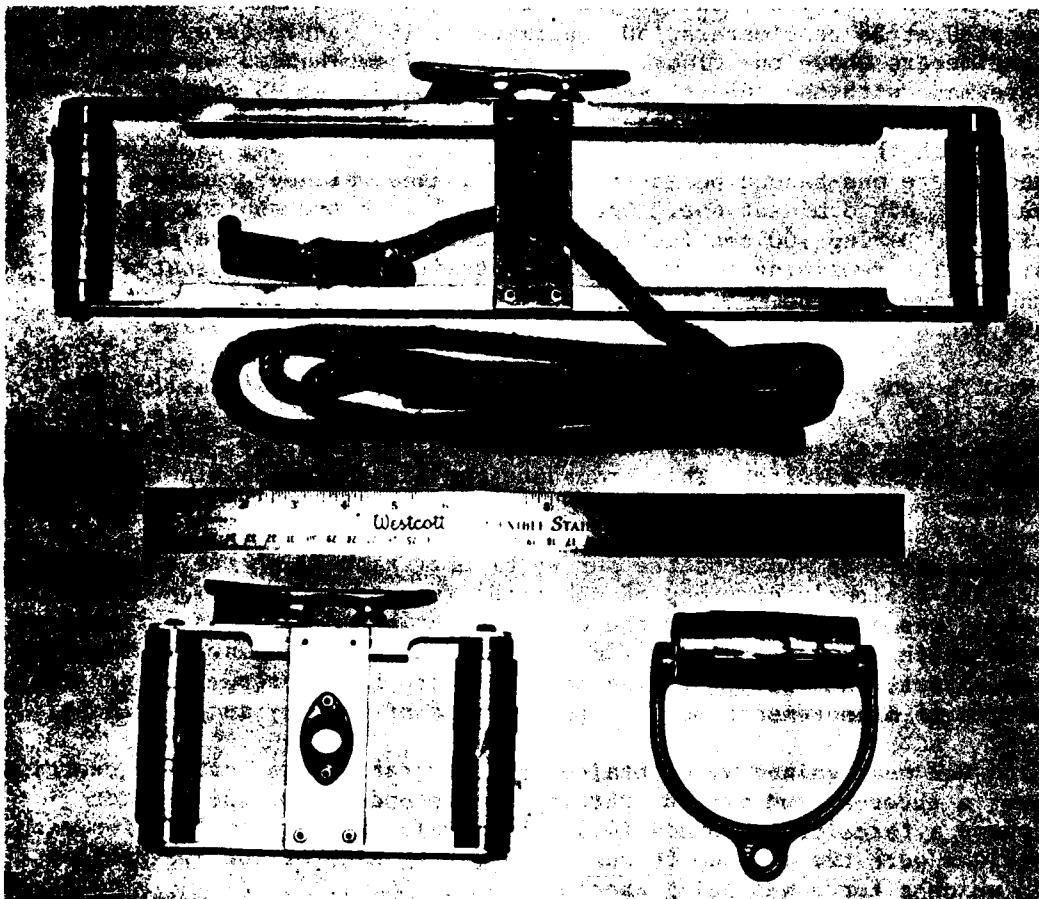


Figure 5. Strength-measuring handles.

## ARMY CORPS ANTHROPOMETRIC SURVEY BLANK - 1976/1977

(Please print all requested information)

Subject No. \_\_\_\_\_

Social Security No. \_\_\_\_\_

Name \_\_\_\_\_  
(Last)            (First)            (Middle)

Location \_\_\_\_\_

Handedness      R      L      A  
(circle appropriate symbol)

## Sub-Series #4

Static Muscle Strength (lbs of force)

		Average	T <sub>1</sub>	T <sub>2</sub>																		
		Peak																				
1.	Standing Two-Handed Lift 38 cm Above Floor Long Handle (Bent Knee)		<table border="1" style="display: inline-table; vertical-align: middle;"><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr></table>										<table border="1" style="display: inline-table; vertical-align: middle;"><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr></table>									
2.	Standing Two-Handed Lift 50 cm Above Floor Long Handle (Straight Knee)		<table border="1" style="display: inline-table; vertical-align: middle;"><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr></table>										<table border="1" style="display: inline-table; vertical-align: middle;"><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr></table>									
3.	Standing Two-Handed Lift 100 cm Above Floor Long Handle		<table border="1" style="display: inline-table; vertical-align: middle;"><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr></table>										<table border="1" style="display: inline-table; vertical-align: middle;"><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr></table>									
4.	Standing Two-Handed Lift 150 cm Above Floor Long Handle		<table border="1" style="display: inline-table; vertical-align: middle;"><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr></table>										<table border="1" style="display: inline-table; vertical-align: middle;"><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr></table>									
5.	Standing One-Handed Lift 100 cm Above Floor "D" Ring		<table border="1" style="display: inline-table; vertical-align: middle;"><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr></table>										<table border="1" style="display: inline-table; vertical-align: middle;"><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr></table>									
6.	Seated One-Handed Pull Centerline of Seat 45 cm Above Floor "D" Ring		<table border="1" style="display: inline-table; vertical-align: middle;"><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr></table>										<table border="1" style="display: inline-table; vertical-align: middle;"><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr></table>									

Figure 6a. The survey blank: static muscle strength subseries.

## ARMY CORPS ANTHROPOMETRIC SURVEY BLANK - 1976/1977, Sub-Series #4

(continued)

		T <sub>1</sub>	T <sub>2</sub>																		
7. Seated One-Handed Pull Side of Seat (Dominant Hand) 45 cm Above Floor "D" Ring	Average	<table border="1" style="display: inline-table; vertical-align: middle;"><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr></table>										<table border="1" style="display: inline-table; vertical-align: middle;"><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr></table>									
8. Seated Two-Handed Pull Centerline of Seat 38 cm Above Floor Short Handle	Average	<table border="1" style="display: inline-table; vertical-align: middle;"><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr></table>										<table border="1" style="display: inline-table; vertical-align: middle;"><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr></table>									
9. Seated Two-Handed Pull Centerline of Seat 50 cm Above Floor Short Handle	Average	<table border="1" style="display: inline-table; vertical-align: middle;"><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr></table>										<table border="1" style="display: inline-table; vertical-align: middle;"><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr></table>									
10.	Average	<table border="1" style="display: inline-table; vertical-align: middle;"><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr></table>										<table border="1" style="display: inline-table; vertical-align: middle;"><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr></table>									
11.	Average	<table border="1" style="display: inline-table; vertical-align: middle;"><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr></table>										<table border="1" style="display: inline-table; vertical-align: middle;"><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr></table>									
12.	Average	<table border="1" style="display: inline-table; vertical-align: middle;"><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr></table>										<table border="1" style="display: inline-table; vertical-align: middle;"><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr></table>									
13.	Average	<table border="1" style="display: inline-table; vertical-align: middle;"><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr></table>										<table border="1" style="display: inline-table; vertical-align: middle;"><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr></table>									
14.	Average	<table border="1" style="display: inline-table; vertical-align: middle;"><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr></table>										<table border="1" style="display: inline-table; vertical-align: middle;"><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr></table>									
15.	Average	<table border="1" style="display: inline-table; vertical-align: middle;"><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr></table>										<table border="1" style="display: inline-table; vertical-align: middle;"><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr></table>									

Figure 6b. The survey blank: static muscle strength subseries.

## DEFINITIONS OF THE STRENGTH MEASUREMENTS

**STANDING TWO-HANDED PULL--38-CENTIMETER LEVEL:** The subject stands with his feet 45 centimeters apart and his knees bent. He bends at the waist and grasps both sides of the long handle which is attached 38 centimeters above the platform and directly in front of him. He is instructed to minimize pull with his back to lessen the chance of injury. He attempts to lift the handle, primarily using his arms and shoulders but also using his legs by extending them upwards.

**STANDING TWO-HANDED PULL--50-CENTIMETER LEVEL:** The subject stands with his feet 45 centimeters apart and his knees straight. He bends at the waist and grasps both sides of the long handle which is attached 50 centimeters above the platform and directly in front of him. He is instructed to minimize pull with his back to lessen the chance of injury. He attempts to lift the handle, primarily using the arms and shoulders.

**STANDING TWO-HANDED PULL--100-CENTIMETER LEVEL:** The subject stands erect with his feet 45 centimeters apart and grasps both sides of the long handle which is attached 100 centimeters above the platform and directly in front of him. He attempts to lift the handle using his arms, while keeping his knees straight and his feet firmly planted on the platform.

**STANDING TWO-HANDED PUSH--150-CENTIMETER LEVEL:** The subject stands erect with his feet 45 centimeters apart and grasps, from below, both sides of the long handle which is attached 150 centimeters above the platform and directly in front of him. He attempts to push the handle straight upward using his arms and shoulders, while keeping his knees straight and his feet firmly planted on the platform.

**STANDING ONE-HANDED PULL--100-CENTIMETER LEVEL (D-RING):** The subject stands erect with his feet 15 centimeters apart. With his dominant hand (right, if he has reported that he is ambidextrous), he grasps, from the underside, the D-ring which is attached 100 centimeters above the platform and at a point just to the right (or left, as is appropriate) of his body. He attempts to lift the D-ring, primarily using his arm while keeping his shoulders square, his feet firmly planted on the platform, and his other arm relaxed at his side.

**SEATED ONE-HANDED PULL, CENTERLINE OF SEAT--45-CENTIMETER LEVEL (D-RING):** The subject sits erect with his feet 55 centimeters apart. With his dominant hand, he grasps, from the underside, the D-ring which is attached 45 centimeters above the platform, just forward of the chair in its vertical midplane. He attempts to lift the D-ring, keeping his shoulders square, his feet firmly planted on the platform, and his other arm resting in his lap and not grasping the underside of the chair.

SEATED ONE-HANDED PULL, SIDE OF SEAT--45-CENTIMETER LEVEL (D-RING): The subject sits erect with his feet 55 centimeters apart. With his dominant hand, he grasps, from the underside, the D-ring which is attached 45 centimeters above the platform and a short distance to the right (or left, as is appropriate) of the point midway between the maximal protrusion of the buttock and knee. He attempts to lift the D-ring, keeping his shoulders square, his feet firmly planted on the platform, and his other arm resting in his lap.

SEATED TWO-HANDED PULL, CENTERLINE OF SEAT--38-CENTIMETER LEVEL (SHORT HANDLE): The subject sits erect with his feet 55 centimeters apart. He bends slightly at the waist and grasps both sides of the short handle which is attached 38 centimeters above the platform at a point just forward of the chair and in its vertical midplane. He attempts to lift the handle, primarily using his arms and shoulders while keeping his feet flat and his arms off his thighs.

SEATED TWO-HANDED PULL, CENTERLINE OF SEAT--50-CENTIMETER LEVEL (SHORT HANDLE): The subject sits erect with his feet 55 centimeters apart. He bends slightly at the waist and grasps both sides of the short handle which is attached 50 centimeters above the platform at a point just forward of the chair and in its vertical midplane. He attempts to lift the handle, primarily using his arms and shoulders while keeping his feet flat and his arms off his thighs.

TABLE 7a  
STATIC STRENGTH MEASUREMENTS--STANDING TWO-HANDED PULL 38 CM ABOVE FLOOR

**SUMMARY-STATISTICS**

		KG	LB	KG	LB	V=20.1%	V-I= .2	V-II= 2.4
MEAN FORCE -	1	M= 102.7/226.5	SD= 20.6/	45.4				
MEAN FORCE -	2	M= 103.9/229.0	SD= 19.1/	42.0		V=18.3%	V-I= .4	V-II= 2.6
PEAK FORCE -	1	M= 111.0/245.2	SD= 20.8/	45.9		V=18.7%	V-I= .2	V-II= 2.3
PEAK FORCE -	2	M= 113.9/251.6	SD= 18.1/	46.0		V=15.9%	V-I= .3	V-II= 2.9
<b>PERCENTILES</b>								
<b>KILOGRAMS</b>								
MEAN FORCE -	1	5TH 70.3	10TH 73.7	25TH 79.6	35TH 92.7	50TH 111.9	65TH 112.8	75TH 116.9
MEAN FORCE -	2	75.2	80.2	83.9	89.6	95.0	102.5	110.4
PEAK FORCE -	1	70.5	84.0	86.3	95.4	101.5	110.2	119.2
PEAK FORCE -	2	86.1	91.5	95.3	101.0	115.9	112.7	120.1
<b>POUNDS</b>								
MEAN FORCE -	1	5TH 154.9	10TH 162.5	25TH 175.5	35TH 191.6	50TH 204.3	65TH 224.6	75TH 248.6
MEAN FORCE -	2	165.4	176.7	184.9	198.0	209.5	225.9	243.5
PEAK FORCE -	1	173.3	185.2	194.7	210.3	223.9	243.3	262.7
PEAK FORCE -	2	189.9	201.8	210.0	222.6	233.5	248.0	264.7

TABLE 7b  
STATIC STRENGTH MEASUREMENTS--STANDING TWO-HANDED PULL 50 CM ABOVE FLOOR

SUMMARY-SIMILARITIES

		KG	LB	KG	LB
MEAN FORCE	- 1	M= 102.1/225.1	SD= 18.2/ 40.1	V=17.6%	V-I= .4
MEAN FORCE	- 2	M= 103.2/227.4	SD= 18.1/ 39.6	V=17.5%	V-II= .6
PEAK FORCE	- 1	M= 112.1/247.2	SD= 19.3/ 43.1	V=17.4%	V-III= .4
PEAK FORCE	- 2	M= 112.7/248.6	SD= 18.7/ 41.2	V=16.6%	V-IV= .5

PERCENTILES

		5TH	10TH	15TH	25TH	35TH	50TH	65TH	75TH	85TH	90TH	95TH
MEAN FORCE	- 1	74.5	79.2	82.7	88.5	93.5	100.7	106.3	114.3	122.0	127.2	134.9
MEAN FORCE	- 2	77.3	81.4	84.5	89.0	94.5	101.4	106.9	114.9	122.9	128.4	136.8
PEAK FORCE	- 1	82.3	87.9	91.6	97.0	102.7	110.3	116.5	125.0	133.4	139.0	147.0
PEAK FORCE	- 2	84.7	89.4	92.9	98.6	103.8	111.0	118.7	124.7	132.4	137.8	145.8

POUNDS

		5TH	10TH	15TH	25TH	35TH	50TH	65TH	75TH	85TH	90TH	95TH
MEAN FORCE	- 1	164.2	174.6	162.4	195.1	206.1	222.0	238.9	252.1	269.4	280.5	297.4
MEAN FORCE	- 2	170.4	179.4	166.3	197.5	208.3	223.5	240.1	253.4	270.9	283.1	301.6
PEAK FORCE	- 1	182.4	193.7	201.9	214.9	226.4	243.1	261.2	275.6	294.1	306.5	324.1
PEAK FORCE	- 2	186.0	197.0	204.9	217.7	228.3	244.6	261.7	274.3	292.0	303.8	321.5

TABLE 7c  
STATIC STRENGTH MEASUREMENTS--STANDING TWO-HANDED PULL 100 CM ABOVE FLOOR

SUMMARY STATISTICS									
		KG	LB	KG	LB	KG	LB	KG	LB
MEAN FORCE - 1	M=	96.6	146.8	SD=	14.7	32.4	V=22.1%	V-I=	.6
MEAN FORCE - 2	M=	66.9	145.4	SD=	15.0	33.0	V=22.7%	V-I=	.6
PEAK FORCE - 1	M=	72.4	159.6	SD=	15.0	33.1	V=23.7%	V-I=	.5
PEAK FORCE - 2	M=	72.4	159.5	SD=	15.9	35.1	V=22.0%	V-I=	.5

PERCENTILES									
		5TH	10TH	15TH	25TH	35TH	50TH	70TH	85TH
MEAN FORCE - 1	45.3	47.7	52.2	57.2	59.5	62.8	70.8	76.3	82.8
MEAN FORCE - 2	43.6	47.7	50.6	55.1	59.0	64.4	70.4	75.1	81.5
PEAK FORCE - 1	51.4	55.0	57.3	60.9	64.3	66.8	77.5	83.2	88.9
PEAK FORCE - 2	48.3	52.5	55.6	60.5	64.8	70.8	77.3	82.5	89.1

KILOGRAMS									
		5TH	10TH	15TH	25TH	35TH	50TH	70TH	85TH
MEAN FORCE - 1	99.9	105.3	115.1	126.1	131.2	138.5	156.1	168.2	182.6
MEAN FORCE - 2	96.1	105.1	111.5	121.5	130.0	142.1	155.2	165.6	179.6
PEAK FORCE - 1	113.3	121.3	126.4	134.3	141.6	151.0	170.6	184.1	195.9
PEAK FORCE - 2	106.4	115.7	122.6	133.4	142.0	156.2	170.5	181.8	196.5

POUNDS									
		5TH	10TH	15TH	25TH	35TH	50TH	70TH	85TH
MEAN FORCE - 1	195.8	209.3	205.2	205.6	189.6	189.0	205.0	205.9	220.9
MEAN FORCE - 2	182.6	195.8	195.0	195.2	189.6	189.0	205.0	205.9	220.9
PEAK FORCE - 1	206.7	222.0	206.7	206.7	206.5	206.5	206.7	206.7	222.0
PEAK FORCE - 2	196.5	206.7	196.5	196.5	196.3	196.3	196.7	196.7	206.7

TABLE 7d  
STATIC STRENGTH MEASUREMENTS--STANDING TWO-HANDED PUSH 150 CM ABOVE FLOOR

SUMMARY-SIGNIFIGRS

		KG	LB	KG	LB	KG	LB	V=26.6%	V=I=	.5	V=II= 2.0
MEAN FORCE -	1	M= 7.0.2/143.0.1	SD= 17.9/ 39.4								
MEAN FORCE -	2	M= 68.0.8/151.0.6	SD= 19.8/ 43.7	V=28.9%	V=I= .9	V=II= 4.3					
PEAK FORCE -	1	M= 74.0.2/164.0.3	SD= 19.1/ 42.2	V=25.7%	V=I= .8	V=II= 3.0					
PEAK FORCE -	2	M= 75.0.3/167.0.3	SD= 20.2/ 45.3	V=27.1%	V=I= 1.1	V=II= 5.3					
PERCENTILES											
KILOGRAMS											
MEAN FORCE -	1	5TH 41.0.7	10TH 45.0.4	15TH 48.0.3	20TH 53.0.3	25TH 58.0.0	30TH 65.0.4	35TH 72.0.9	40TH 79.1	45TH 87.1	50TH 92.4
MEAN FORCE -	2	40.3	45.0	48.4	52.0	54.6	59.0	66.4	74.5	81.0	89.3
PEAK FORCE -	1	48.0.3	52.0.0	55.0.2	60.0.4	65.0.1	72.0.2	80.0.6	86.0.4	94.0.6	100.0.3
PEAK FORCE -	2	48.0.2	52.0.2	55.0.8	61.0.1	65.9	73.0.1	81.1	87.0	90.3	102.4
POUNDS											
MEAN FORCE -	1	5TH 91.0.3	10TH 100.1	15TH 106.5	20TH 117.6	25TH 127.0	30TH 143.0.3	35TH 160.6	40TH 174.4	45TH 192.1	50TH 203.0
MEAN FORCE -	2	65.0.9	93.0.3	106.0.6	119.0.6	130.0.1	140.0.4	160.0.3	178.0.5	197.0	219.0
PEAK FORCE -	1	105.0.7	114.0.7	121.0.6	133.0.1	143.0.5	159.0.1	176.0.5	190.0.4	208.0.6	228.0.6
PEAK FORCE -	2	106.0.3	115.0.8	122.0.9	134.0.6	142.0.4	161.0.2	170.0.9	193.0.2	212.0.3	225.0.7

TABLE 7e  
STATIC STRENGTH MEASUREMENTS--STANDING ONE-HANDED PULL 100 CM ABOVE FLOOR

SUMMARY STATISTICS

		KG	LB	KG	LB
MEAN FORCE -	1	M= 41.6/	91.7	SD= 13.1/	28.9
MEAN FORCE -	2	M= 42.3/	93.3	SD= 12.8/	28.2
PEAK FORCE -	1	M= 47.6/104.9	SD= 14.9/	32.8	V=31.3%
PEAK FORCE -	2	M= 48.9/107.7	SD= 14.4/	31.7	V=29.5%

PERCENTILES

		KILOGRAMS		KILOGRAMS	
5TH	10TH	15TH	25TH	35TH	50TH
MEAN FORCE -	1	21.7	24.1	31.8	37.0
MEAN FORCE -	2	21.9	25.7	28.6	33.1
PEAK FORCE -	1	26.4	30.3	33.0	37.3
PEAK FORCE -	2	26.2	30.6	34.0	39.1

POUNDS

		POUNDS		POUNDS	
5TH	10TH	15TH	25TH	35TH	50TH
MEAN FORCE -	1	47.9	53.2	60.2	70.4
MEAN FORCE -	2	48.3	56.0	62.9	73.6
PEAK FORCE -	1	58.2	66.7	72.7	82.1
PEAK FORCE -	2	57.8	67.5	74.9	86.1

TABLE 7f

STATIC STRENGTH MEASUREMENTS--SEATED ONE-HANDED PULL CENTERLINE OF SEAT  
45 CM ABOVE FLOOR

## SUMMARY STATISTICS

		KG	LB	KG	LB	V= 34.7%	V-I= -0.1	V-II= 2.2	
MEAN FORCE	- 1	M= 45.4/100.1	SD= 14.0/	30.0	6	V= 29.9%	V-I= -0.2	V-II= 2.1	
MEAN FORCE	- 2	M= 47.6/104.9	SD= 14.2/	31.4	7	V= 28.8%	V-I= -0.2	V-II= 2.1	
PEAK FORCE	- 1	M= 52.0/114.7	SD= 15.0/	33.1	7	V= 26.5%	V-I= -0.2	V-II= 2.1	
PEAK FORCE	- 2	M= 53.2/117.3	SD= 15.2/	33.4	7	V= 26.5%	V-I= -0.1	V-II= 2.1	
PERCENTILES									
KILOGRAMS									
5TH	10TH	15TH	25TH	35TH	50TH	65TH	85TH	95TH	
MEAN FORCE	- 1	21.3	26.6	28.5	34.3	40.1	46.8	51.1	55.5
MEAN FORCE	- 2	23.2	26.3	28.9	35.0	42.8	48.3	54.5	59.9
PEAK FORCE	- 1	27.1	30.2	32.7	41.4	47.4	53.8	58.2	63.2
PEAK FORCE	- 2	27.9	31.3	33.6	41.7	48.7	54.3	59.3	64.7
POUNDS									
5TH	10TH	15TH	25TH	35TH	50TH	65TH	85TH	95TH	
MEAN FORCE	- 1	46.9	58.6	62.9	75.5	88.4	103.3	112.6	122.3
MEAN FORCE	- 2	51.1	58.4	63.7	78.5	94.5	106.5	120.2	132.1
PEAK FORCE	- 1	55.8	66.7	72.1	91.3	104.5	110.6	126.3	139.3
PEAK FORCE	- 2	61.4	69.0	74.1	92.0	117.3	119.8	136.7	144.3

TABLE 78  
STATIC STRENGTH MEASUREMENTS--SEATED ONE-HANDED PULL SIDE OF SEAT  
45 CM ABOVE FLOOR

SUMMARY-STATISTICS

		KG	LBS	KG	LBS	V=30.3%	V-I=	.3	V-II= 2.6
MEAN FORCE -	1	M= 39.0 3/	86.7	SD= 11.9 /	26.3	V=27.1%	V-I=	.3	V-II= 2.6
MEAN FORCE -	2	M= 42.0 3/	93.2	SD= 11.4 /	25.2	V=29.0%	V-I=	.2	V-II= 2.6
PEAK FORCE -	1	M= 42.0 3/	93.9	SD= 13.1 /	28.9	V=29.0%	V-I=	.3	V-II= 2.6
PEAK FORCE -	2	M= 47.9/105.6	SD= 12.2 /	26.9	V=25.5%	V-I=	.3	V-II= 3.0	

PERCENTILES

		5TH	10TH	15TH	25TH	35TH	50TH	65TH	75TH	85TH	90TH	95TH
MEAN FORCE -	1	20.4	22.8	25.3	29.2	32.7	39.9	43.2	46.9	52.7	55.3	57.7
MEAN FORCE -	2	24.4	28.1	29.9	33.2	35.9	41.6	46.9	49.9	55.1	59.2	61.5
PEAK FORCE -	1	24.4	26.7	29.6	34.1	39.2	45.9	50.4	54.5	59.4	61.9	66.5
PEAK FORCE -	2	27.8	32.7	34.6	38.2	42.8	47.2	52.7	55.8	62.1	64.3	67.2

TABLE 7h

STATIC STRENGTH MEASUREMENTS SEATED TWO-HANDED PULL CENTERLINE OF SEAT  
38 CM ABOVE FLOOR

## SUMMARY STATISTICS

		KG	LB	KG	LB	V=22.4%	V=1%	V-II= .3	V-II= 2.7
MEAN FORCE -	1	M= 89.7/197.8	SD= 26.1/	44.3	V=22.4%	V=1%	V-II= .3	V-II= 2.7	
MEAN FORCE -	2	M= 90.5/199.4	SD= 18.4/	40.0	V=20.4%	V=1%	V-II= .2	V-II= 3.1	
PEAK FORCE -	1	M= 98.2/216.5	SD= 20.3/	44.8	V=20.7%	V=1%	V-II= .5	V-II= 3.1	
PEAK FORCE -	2	M= 100.0/220.4	SD= 18.5/	40.8	V=18.5%	V=1%	V-II= .3	V-II= 3.1	

## PERCENTILES

		5TH	10TH	15TH	25TH	35TH	50TH	65TH	75TH	85TH	90TH	95TH
MEAN FORCE -	1	59.3	64.9	68.9	75.2	80.6	88.3	96.5	103.0	111.2	116.7	124.5
MEAN FORCE -	2	60.7	67.1	71.6	78.2	83.4	90.3	97.1	102.2	108.5	112.9	119.5
PEAK FORCE -	1	98.0	74.1	76.0	83.9	66.3	96.0	104.0	110.5	119.2	125.5	135.0
PEAK FORCE -	2	71.3	77.6	81.7	87.7	92.5	99.0	105.8	111.1	118.3	123.4	131.6

## KILOGRAMS

		5TH	10TH	15TH	25TH	35TH	50TH	65TH	75TH	85TH	90TH	95TH
MEAN FORCE -	1	130.8	143.2	151.9	165.6	177.6	194.6	212.8	227.0	245.1	257.2	274.5
MEAN FORCE -	2	133.7	148.4	157.0	172.4	183.9	199.1	214.1	225.3	239.3	248.8	263.3
PEAK FORCE -	1	149.9	163.3	172.0	185.4	195.9	211.7	229.2	243.5	262.6	276.6	297.7
PEAK FORCE -	2	157.1	171.0	160.1	193.4	203.9	218.3	235.2	245.0	260.7	272.1	290.2

## POUNDS

TABLE 71  
STATIC STRENGTH MEASUREMENTS SEATED TWO-HANDED PULL CENTERLINE OF SEAT  
50 CM ABOVE FLOOR

SUMMARY STATISTICS

		KG	LB	KG	LB	V=22.5%	V=1=	.5	V-11=	4.0
MEAN FORCE -	1	M= 77.5/170.9	SD= 17.5/ 38.5							
MEAN FORCE -	2	M= 77.8/171.5	SD= 16.1/ 35.0							
PEAK FORCE -	1	M= 85.3/188.6	SD= 18.9/ 41.6							
PEAK FORCE -	2	M= 87.1/191.9	SD= 18.2/ 40.2							

PERCENTILES

		5TH	10TH	15TH	25TH	35TH	50TH	65TH	75TH	85TH	90TH	95TH
MEAN FORCE -	1	49.3	55.3	59.6	66.0	70.9	77.2	83.3	87.9	94.1	96.8	107.3
MEAN FORCE -	2	53.5	58.1	61.2	66.1	70.3	76.4	83.1	88.5	95.5	100.3	107.3
PEAK FORCE -	1	57.4	63.0	66.9	72.7	77.4	83.6	90.5	95.9	103.5	109.3	119.5
PEAK FORCE -	2	60.7	65.2	68.4	73.5	78.1	84.9	92.5	98.7	107.0	112.7	121.2

POUNDS

		5TH	10TH	15TH	25TH	35TH	50TH	65TH	75TH	85TH	90TH	95TH
MEAN FORCE -	1	108.7	122.0	131.5	145.4	156.3	170.2	193.5	193.7	207.4	217.9	236.5
MEAN FORCE -	2	118.3	128.1	135.0	145.7	154.9	168.4	183.1	195.0	210.9	221.1	236.5
PEAK FORCE -	1	126.6	138.8	147.4	160.3	170.7	184.8	199.5	211.4	228.1	241.0	263.5
PEAK FORCE -	2	133.9	143.7	150.7	162.0	172.1	187.1	204.0	217.7	235.8	248.5	267.3

BIBLIOGRAPHY

Churchill, Edmund, Thomas Churchill, John T. McConville, and Robert M. White. 1977. Anthropometry of Women of the U. S. Army--1977, Report No. 2 - The Basic Univariate Statistics, Technical Report NATICK/TR-77/024, U. S. Army Natick Research and Development Command, Natick, Massachusetts.

Churchill, Thomas, Edmund Churchill, John T. McConville, and Robert M. White. 1977. Anthropometry of Women of the U. S. Army--1977, Report No. 3 - Bivariate Frequency Tables. Technical Report NATICK/TR-77/028, U. S. Army Natick Research and Development Command, Natick, Massachusetts.

Laubach, Lloyd L., John T. McConville, Edmund Churchill, and Robert M. White. 1977. Anthropometry of Women of the U. S. Army--1977, Report No. 1 - Methodology and Survey Plan. Technical Report NATICK/TR-77/021, U. S. Army Natick Research and Development Command, Natick, Massachusetts.

Preceding Page BLANK - NOT  
FILMED

APPENDIX A  
ADDITIONAL SUMMARY STATISTICS

Listed in this appendix are standard errors of the means and standard deviations, measures of symmetry and kurtosis, as well as six additional percentiles for the core-subseries 1 measurements, the workspace subseries and the head and face subseries. Units of measurement are shown in centimeters, except for weight which is given in pounds.

A-1. ADDITIONAL SUMMARY STATISTICS FOR THE  
CORE-SUBSERIES 1 MEASUREMENTS

	SL (M)	SE (SD)	SYMM ETRY	KJRT OSIS	- - - PERCENTILES - - -					
				30TH	40TH	45TH	55TH	60TH	70TH	
10 WEIGHT	1.43	1.01	.01	2.94	140.2	146.3	148.8	154.1	157.2	160.7
20 STATURE	.40	.28	.00	3.54	170.8	172.5	173.3	174.9	175.7	177.4
40 AXILLA HEIGHT	.35	.25	-.00	3.25	128.4	129.9	130.6	132.0	132.7	134.2
21 SUPRASTERNALE HGT	.36	.25	-.01	3.37	139.7	141.3	142.0	143.5	144.2	145.8
50 CHEST HEIGHT	.33	.24	-.04	3.22	124.6	126.1	126.8	128.2	128.9	130.4
31 SUBSTERNALE HEIGHT	.32	.23	-.15	3.38	119.9	121.3	122.0	123.3	124.0	125.4
41 ELBOW (RADIALE) HT	.38	.21	-.03	3.28	106.9	108.2	108.8	110.0	110.6	111.9
51 KNUCKLE HEIGHT	.24	.17	.05	3.26	73.4	74.4	74.9	76.0	76.5	77.6
60 WAIST HEIGHT	.34	.24	.04	2.67	101.0	102.6	103.4	104.9	105.6	107.2
80 BUTTOCK HEIGHT	.36	.21	-.01	3.09	86.9	88.3	88.9	90.2	90.8	92.1
71 GLUTEAL FURROW HGT	.26	.18	.06	3.16	78.0	79.1	79.7	80.8	81.4	82.6
81 TIBIALE HEIGHT	.16	.12	-.14	3.18	47.0	47.7	48.0	48.7	49.0	49.7
91 ACROMION-RADIALE L	.11	.08	.01	3.05	32.8	33.2	33.5	33.9	34.2	34.7
111 RADIALE-STYLION LH	.09	.07	.03	3.25	26.0	26.4	26.6	27.0	27.2	27.0
110 SITTING HEIGHT	.21	.15	.05	3.34	67.5	68.4	68.9	69.7	70.2	71.1
120 EYE HEIGHT/SITTING	.20	.14	.01	3.23	72.7	76.5	76.9	77.7	78.1	79.0
130 SHOULDER-ELBOW LTH	.11	.08	.03	3.00	35.4	35.8	36.0	36.5	36.7	37.2
111 ELBOW-GRIP LENGTH	.12	.08	.00	3.44	34.0	34.5	34.7	35.2	35.4	35.9
140 LLBOW-FINGERTIP LH	.15	.10	-.05	3.33	40.6	47.1	47.4	48.0	48.3	49.0
150 KNEE HEIGHT/SIT	.18	.13	-.04	3.06	53.6	54.4	54.7	55.4	55.8	56.6
160 POPLITEAL HEIGHT	.16	.11	-.06	3.02	42.9	43.6	44.0	44.6	45.0	45.7
170 BUTTOCK-KNEE LNGTH	.18	.15	.03	3.01	59.1	60.3	60.4	61.1	61.5	62.4
180 CHEST DEPTH	.12	.08	.03	2.84	20.4	20.9	21.1	21.6	21.9	22.6
190 WAIST DEPTH	.13	.10	.98	4.04	18.9	19.3	19.6	20.1	20.4	21.2
151 BIACROMIAL BREADTH	.12	.08	-.13	2.82	38.5	39.0	39.3	39.8	40.6	40.6
250 SHOULDER CIRCUMFER	.30	.20	.29	2.86	107.3	119.0	119.0	111.4	112.2	114.0
270 CHEST CIRC	.09	.28	.56	2.63	88.7	90.3	91.0	92.6	93.7	95.8
290 WAIST CIRCUMFERNCE	.47	.34	1.06	3.97	73.6	75.2	76.0	77.9	78.9	81.4
191 WAIST C, OMPHALION	.49	.35	1.11	4.08	74.1	75.4	76.0	77.3	78.7	81.0
300 HIP CIRCUMFERENCE	.30	.25	.77	3.10	91.2	92.6	93.3	94.9	95.7	97.7
231 BICEPS CIR, RELAXED	.16	.12	.24	2.75	27.6	28.3	29.7	29.4	29.8	30.6
330 BICEPS CIRC, FLEXED	.16	.11	.13	2.65	29.8	30.6	30.9	31.6	32.0	32.8
390 CALF CIRCUMFERENCE	.17	.12	.28	2.93	34.2	34.9	35.3	35.9	36.3	37.2
400 ANKLE CIRCUMFERNCE	.08	.06	.12	2.76	21.0	21.4	21.7	21.9	22.1	22.5
420 INTERSCYE, BACK	.17	.12	.02	2.82	39.5	40.3	40.6	41.3	41.7	42.5
430 INTERSCYE, FRONT	.12	.08	.10	2.71	35.6	36.1	36.4	36.9	37.1	37.7
440 BACK CURVURE-CHST	.20	.14	.59	2.81	43.0	43.8	44.2	45.1	45.6	46.7
450 BACK CURVURE-WAIST	.25	.16	1.16	4.95	36.5	37.3	37.7	38.6	39.1	40.3
460 BACK CURVATURE-HIP	.18	.13	.71	3.26	44.0	45.3	46.7	45.5	46.9	47.9
470 WAIST BACK LENGTH	.19	.13	.07	2.05	43.1	44.0	44.4	45.3	45.7	46.6

UNITS ARE CENTIMETERS OR POUNDS

ADDITIONAL SUMMARY STATISTICS  
THE CORE-SUBSERIES 1 MEASUREMENTS

	SE (M)	SE (SD)	SYMM ETRY	KURT OSIS	30TH	40TH	45TH	55TH	60TH	70TH
46C WAIST FRONT LENGTH	.18	.13	.00	2.91	39.4	40.2	40.6	41.4	41.6	42.6
51C SLEEVE INSEAM LGTH	.16	.11	.03	3.31	40.8	47.5	47.8	48.5	48.9	49.6
52C SLEEVE OUTSEAM LTH	.19	.13	.04	3.10	57.0	57.8	58.2	59.0	59.4	60.4
54C HEAD CIRCUMFERENCE	.10	.07	-.15	3.01	55.2	55.6	55.9	56.3	56.5	56.9
55C HEAD BREADTH	.05	.02	.17	3.04	14.8	14.9	15.0	15.1	15.2	15.3
56C HEAD LENGTH	.04	.03	-.14	3.03	19.1	19.3	19.4	19.6	19.6	19.8
57C PALM LENGTH	.03	.02	-.10	2.86	10.5	10.6	10.7	10.8	10.9	11.1
58C HAND BREADTH	.03	.02	.04	2.64	8.7	8.8	8.9	9.0	9.0	9.2
59C HAND CIRCUMFERENCE	.06	.04	.08	2.96	20.6	21.8	21.0	21.2	21.3	21.6
60C HAND LENGTH	.06	.04	-.13	2.76	18.5	18.8	18.9	19.1	19.3	19.6
61C INSTEP LENGTH	.07	.05	.02	2.83	19.1	19.4	19.6	19.9	20.0	20.3
62C FOOT LENGTH	.08	.06	-.16	2.80	26.1	26.4	26.6	27.0	27.1	27.5
63C HEEL-ANKLE CIRCUMF	.10	.07	.07	3.14	33.1	33.5	33.7	34.1	34.4	34.9
64C FOOT BREADTH	.03	.02	-.12	3.31	9.6	9.0	9.8	10.0	10.0	10.2
56C FOOT CIRCUMFERENCE	.08	.05	.10	2.88	24.4	24.6	24.9	25.2	25.4	25.8
69C SPHYRION HEIGHT	.04	.03	-.03	2.97	7.1	7.2	7.3	7.5	7.6	7.7
29T WAIST HT/OMPHALION	.31	.22	-.08	3.11	12.8	14.1	14.6	15.1	15.7	16.2
30T MIDSHOULDER HT/SIT	.18	.13	.08	2.09	59.8	63.6	63.9	64.7	62.1	62.9

A-2. ADDITIONAL SUMMARY STATISTICS  
FOR THE WORKSPACE SUBSERIES

	SE (M)	SE (SD)	SYMM ETRY	KURT OSIS	30TH	40TH	45TH	50TH	60TH	70TH	- - - PERCENTILES - - -
1W OVERHEAD REACH HGT	.91	.65	-.09	3.16	210.2	212.7	213.9	216.3	217.5	220.1	
2W FUNCTIONAL REACH	.40	.28	-.17	2.87	77.6	78.8	79.3	80.4	81.0	82.1	
3W FUNCTIONAL RCH/EXT	.51	.36	.27	2.74	88.7	90.1	90.7	92.1	92.8	94.5	
4W OVERHEAD REACH/SIT	.57	.40	-.04	3.82	134.2	135.5	136.1	137.0	137.9	139.4	
5W FUNCTIONAL LEG LN	.51	.36	.11	2.65	115.7	117.2	117.7	119.4	120.6	121.4	
6W WEIGHT (CLOTHED)	2.12	1.50	.59	3.17	145.8	151.0	153.6	159.1	162.0	168.5	
7W STATURE (CLOTHED)	.61	.43	.06	3.26	174.9	176.3	177.0	178.2	179.1	181.4	
8W OVERHEAD RCH BRDTH	.20	.14	.09	2.83	37.4	38.0	38.2	38.8	39.0	39.6	
9W BENT TORSO HEIGHT	.71	.50	.06	2.37	132.9	135.0	136.1	136.1	139.2	141.5	
10W BENT TORSO BREADTH	.22	.15	-.15	4.63	43.7	44.3	44.5	45.0	45.3	45.8	
11W KNEELING HEIGHT	.44	.31	.02	2.97	126.8	127.9	128.0	129.0	130.2	131.5	
12W KNEELING LEG LNGTH	.35	.25	-.27	3.57	67.4	68.5	69.0	69.9	70.5	71.1	
13W BENT KNEE HEIGHT	.26	.18	-.06	2.68	47.5	48.3	48.7	49.4	49.8	50.6	
14W HORIZ L/KNEES BENT	.65	.40	.21	2.29	156.9	158.9	159.6	161.6	162.8	165.0	
1C WEIGHT-NUDE	2.10	1.49	.50	3.17	140.3	145.5	148.2	153.6	156.5	162.9	
2C STATURE-NUDE	.63	.44	.04	3.22	170.7	172.3	173.1	174.7	175.5	177.3	

A-3. ADDITIONAL SUMMARY STATISTICS FOR THE  
HEAD AND FACE SUBSERIES

	SE (M)	SE (SD)	SYMM ETRY	KURT OSIS	30TH	40TH	45TH	55TH	65TH	70TH
1H SAGITTAL ARC	.15	.11	.12	3.74	34.0	34.4	34.5	34.9	35.3	35.5
2H BIT'ON-CORONAL ARC	.12	.09	-.14	2.62	33.4	33.8	34.0	34.3	34.5	34.9
3H BIT'ON-FRONTAL ARC	.11	.07	-.03	2.74	28.7	29.0	29.2	29.4	29.6	29.9
4H BITR'ON-MENTON ARC	.13	.09	-.02	2.39	30.4	30.8	31.0	31.4	31.5	32.0
5H BIT-SUBMANDBLR ARC	.13	.09	.04	2.20	27.7	28.3	28.5	28.9	29.0	29.3
6H GLABELLA TO WALL	.07	.05	.37	3.42	19.2	19.4	19.5	19.5	19.7	19.9
7H SELLION TO WALL	.07	.05	.32	3.75	19.2	19.3	19.4	19.5	19.6	19.8
8H PRONASALE TO WALL	.07	.05	.07	3.68	21.8	22.0	22.1	22.3	22.4	22.5
9H SUBNASALE TO WALL	.08	.05	.38	3.47	20.5	20.7	20.8	20.9	21.0	21.2
10H LIP PROTRUS'N-WALL	.10	.07	.51	3.29	20.3	20.6	20.7	21.0	21.1	21.4
11H MENTON TO WALL	.11	.08	.45	3.69	19.6	19.9	20.0	20.3	20.4	20.7
12H ECTOCANTHUS-WALL	.07	.05	.12	3.12	17.1	17.3	17.4	17.6	17.7	17.9
13H TRAGION TO WALL	.07	.05	-.05	3.69	10.0	10.1	10.2	10.4	10.5	10.7
14H BITRAGION BREADTH	.06	.04	-.04	2.63	13.2	13.4	13.5	13.5	13.7	13.8
15H HEAD HT/TRAGN-VRTX	.07	.05	.03	3.47	13.1	13.3	13.3	13.5	13.6	13.7
16H ECTOCANTHUS-VERTEX	.08	.06	.22	3.14	10.6	10.8	10.9	11.1	11.2	11.4
17H GLABELLA TO VERTEX	.09	.06	.06	2.30	7.4	7.5	7.8	8.0	8.1	8.4
18H SELLION TO VERTEX	.10	.07	.24	2.55	9.0	9.3	9.6	9.9	9.9	10.1
19H PRONASALE TO VERTX	.11	.07	.43	2.82	12.5	12.8	12.9	13.2	13.3	13.7
20H SUBNASALE TO VERTX	.09	.07	.22	2.74	13.9	14.2	14.3	14.6	14.7	15.0
21H STOMION TO VERTEX	.10	.07	.23	2.75	16.3	16.5	16.6	16.9	17.1	17.4
22H MENTON TO VERTEX	.10	.07	.36	2.86	20.8	21.0	21.1	21.4	21.5	21.8
23H FACE LENGTH	.07	.05	.07	2.54	11.3	11.5	11.6	11.8	11.9	12.1
24H CRINION-MENTON	.08	.06	-.04	3.06	18.1	18.4	18.5	18.7	18.8	19.0
25H MINIMUM FRONTAL BR	.08	.06	-.15	2.19	10.7	10.9	11.0	11.3	11.4	11.6
26H FACE B/BIZYGOHATIC	.05	.04	-.38	2.70	13.5	13.7	13.7	13.9	14.0	14.1
27H BIOLAR BREADTH	.05	.03	-.10	3.25	9.9	10.0	10.1	10.2	10.3	10.4
28H INTERPUPILLARY DIS	.07	.03	.05	3.17	5.7	5.8	5.8	5.9	5.9	6.1
29H NOSE LENGTH	.04	.03	.31	2.50	4.8	4.8	4.9	5.0	5.0	5.2
30H NOSE BREADTH	.05	.03	.30	2.22	3.4	3.5	3.6	3.7	3.8	4.0
31H MOUTH BRTH/SMILING	.07	.05	.23	2.34	6.0	6.2	6.3	6.5	6.6	6.9
32H EAR LENGTH	.04	.03	-.27	3.53	6.0	6.1	6.2	6.3	6.3	6.4
33H EAR BREADTH	.04	.03	.21	3.46	4.2	4.2	4.3	4.4	4.4	4.5
34H BIAURICULAR BR	.09	.06	.18	2.98	17.4	17.6	17.7	18.0	18.1	18.3
35H HEAD CIRCUMFERENCE	.15	.11	.11	2.94	55.0	55.5	55.6	56.0	56.2	56.5
36H HEAD BREADTH	.05	.03	-.25	2.20	14.7	14.9	15.0	15.1	15.1	15.3
37H HEAD LENGTH	.06	.05	.18	3.63	19.1	19.3	19.4	19.5	19.6	19.8

## APPENDIX B

### FREQUENCY TABLES

For each set of measurement data, a frequency table is given in this appendix. These are the tables used in the computation of the percentile values. Interval widths were chosen so that the number of intervals in each table did not exceed 50. Where appropriate, interval widths of five or ten millimeters were used; when this was done, the lower limits of the intervals were selected so that they had values ending in 0.25 centimeters or 0.75 centimeters to minimize the effect of any possible overuse of 0's or 5's as final digits. Measurement values were treated as though they extended over a range of from half a unit below the recorded value to half a unit above it. Because of this way of handling the data, the limits of the frequency table will exceed those of the recorded data at both ends of the scale. Actual recorded maximum and minimum values can be found in the XVAL printouts in Appendix C.

In each table, the actual frequencies are listed in the columns labeled FRQ, the cumulative frequencies in the columns headed CUMF, the frequencies expressed as percentages of the total count in the columns headed FRQ%, and the cumulative percents in the columns headed CUMF%.

In these tables, the intervals are shown in centimeters, except those for weight which are given in pounds.

B-1. FREQUENCY TABLES FOR THE CORE-SUBSERIES 1 MEASUREMENTS

1C WEIGHT					2C STATURE				
RANGES	FRQ	CUMF	FRQ%	CUMF%	RANGES	FRQ	CUMF	FRQ%	CUMF%
233.75-236.75	1	287	.35	100.00	196.75-197.75	1	287	.35	100.00
230.75-233.75	0	286	0.00	99.65	195.75-196.75	0	286	0.00	99.65
227.75-230.75	0	286	0.00	99.65	194.75-195.75	0	286	0.00	99.65
224.75-227.75	0	286	0.00	99.65	193.75-194.75	0	286	0.00	99.65
221.75-224.75	0	286	0.00	99.65	192.75-193.75	1	286	.35	99.65
218.75-221.75	1	286	.35	99.65	191.75-192.75	0	285	0.00	99.30
215.75-218.75	2	285	.70	99.30	190.75-191.75	1	285	.35	99.30
212.75-215.75	3	283	1.05	98.51	189.75-190.75	2	284	.70	98.95
209.75-212.75	3	280	1.05	97.56	188.75-189.75	1	282	.35	98.26
206.75-209.75	0	277	0.00	96.52	187.75-188.75	0	281	0.00	97.91
203.75-206.75	1	277	.35	96.52	186.75-187.75	5	281	1.74	97.91
200.75-203.75	2	270	.70	96.17	185.75-186.75	1	276	.35	96.17
197.75-200.75	7	274	2.44	95.47	184.75-185.75	4	275	1.39	95.02
194.75-197.75	6	267	2.09	93.03	183.75-184.75	3	271	1.05	94.43
191.75-194.75	4	261	1.39	90.94	182.75-183.75	5	268	1.74	93.38
188.75-191.75	4	257	1.39	89.55	181.75-182.75	9	263	3.14	91.64
185.75-188.75	3	253	1.05	88.15	180.75-181.75	11	254	3.83	88.50
182.75-185.75	8	256	2.79	87.11	179.75-180.75	10	243	3.48	84.67
179.75-182.75	7	242	2.44	84.32	178.75-179.75	15	233	5.23	81.18
176.75-179.75	9	235	3.14	81.88	177.75-178.75	14	218	4.88	75.96
173.75-176.75	8	226	2.79	78.75	176.75-177.75	14	204	4.88	71.08
170.75-173.75	7	218	2.44	75.96	175.75-176.75	16	190	5.57	66.20
167.75-170.75	8	211	2.79	73.52	174.75-175.75	21	174	7.32	60.63
164.75-167.75	6	203	2.09	70.73	173.75-174.75	17	153	5.92	53.31
161.75-164.75	9	197	3.14	68.64	172.75-173.75	16	136	5.57	47.39
158.75-161.75	8	188	2.79	65.51	171.75-172.75	19	120	6.62	41.81
155.75-158.75	15	180	5.23	62.72	170.75-171.75	12	101	4.18	35.19
152.75-155.75	13	165	4.53	57.49	169.75-170.75	10	89	3.48	31.01
149.75-152.75	17	152	5.92	52.96	168.75-169.75	18	79	6.27	27.53
146.75-149.75	18	135	6.27	47.04	167.75-168.75	16	61	5.57	21.25
143.75-146.75	15	117	5.23	40.77	166.75-167.75	13	45	4.53	15.68
140.75-143.75	12	102	4.18	35.54	165.75-166.75	5	32	1.74	11.15
137.75-140.75	21	90	7.32	31.36	164.75-165.75	5	27	1.74	9.41
134.75-137.75	19	69	6.62	24.04	163.75-164.75	3	22	1.05	7.67
131.75-134.75	17	50	5.92	17.42	162.75-163.75	5	19	1.74	6.62
128.75-131.75	8	33	2.79	11.50	161.75-162.75	3	14	1.05	4.88
125.75-128.75	6	25	2.09	8.71	160.75-161.75	1	11	.35	3.83
122.75-125.75	4	19	1.39	6.62	159.75-160.75	3	10	1.05	3.48
119.75-122.75	6	15	2.09	5.23	158.75-159.75	3	7	1.05	2.44
116.75-119.75	4	9	1.39	3.14	157.75-158.75	1	4	.35	1.39
113.75-116.75	2	5	.70	1.74	156.75-157.75	0	3	0.00	1.05
110.75-113.75	0	3	0.04	1.05	155.75-156.75	1	3	.35	1.05
107.75-110.75	0	3	0.00	1.05	154.75-155.75	0	2	0.00	.70
104.75-107.75	0	3	0.00	1.05	153.75-154.75	0	2	0.00	.70
101.75-104.75	3	3	1.05	1.05	152.75-153.75	2	2	.70	.70

FREQUENCY TABLES FOR CORE-SUBSERIES 1 MEASUREMENTS

4C AXILLA HEIGHT					2T SUPRASTERNAL HGT				
RANGES	FRQ	CUMF	FRQ%	CUMF%	RANGES	FRQ	CUMF	FRQ%	CUMF%
148.75-149.75	1	287	.35	100.00	161.75-162.75	1	287	.35	100.00
147.75-148.75	0	286	0.00	99.65	160.75-161.75	0	286	0.00	99.65
146.75-147.75	3	286	0.00	99.65	159.75-160.75	0	286	0.00	99.65
145.75-146.75	0	286	0.00	99.65	158.75-159.75	1	286	.35	99.65
144.75-145.75	3	286	1.05	99.65	157.75-158.75	0	285	0.00	99.30
143.75-144.75	0	283	0.00	98.61	156.75-157.75	1	285	.35	99.30
142.75-143.75	3	283	1.05	98.61	155.75-156.75	3	284	1.05	98.95
141.75-142.75	3	280	1.05	97.56	154.75-155.75	2	281	.70	97.91
140.75-141.75	4	277	1.39	96.52	153.75-154.75	3	279	1.05	97.21
139.75-140.75	8	273	2.79	95.12	152.75-153.75	3	276	1.05	96.17
138.75-139.75	8	265	2.79	92.33	151.75-152.75	4	273	1.39	95.12
137.75-138.75	10	257	3.48	89.95	150.75-151.75	8	269	2.79	93.73
136.75-137.75	10	247	3.48	86.06	149.75-150.75	5	261	1.74	90.94
135.75-136.75	9	237	3.14	82.58	148.75-149.75	13	256	4.53	89.20
134.75-135.75	15	228	5.23	79.44	147.75-148.75	12	243	4.15	84.67
133.75-134.75	20	213	6.97	74.22	146.75-147.75	18	231	6.27	80.49
132.75-133.75	21	193	7.32	67.25	145.75-146.75	9	213	3.14	74.22
131.75-132.75	22	172	7.67	59.93	144.75-145.75	20	204	6.97	71.08
130.75-131.75	18	150	6.27	52.26	143.75-144.75	17	184	5.94	64.11
129.75-130.75	22	132	7.07	45.99	142.75-143.75	25	167	8.71	58.19
128.75-129.75	15	110	5.23	38.33	141.75-142.75	18	142	6.27	49.48
127.75-128.75	14	95	4.88	33.10	140.75-141.75	23	124	8.01	43.21
126.75-127.75	21	81	7.32	28.22	139.75-140.75	13	101	4.53	35.19
125.75-126.75	15	60	5.23	26.91	138.75-139.75	19	88	6.62	30.66
124.75-125.75	11	45	3.83	15.68	137.75-138.75	11	69	3.83	24.04
123.75-124.75	8	34	2.79	11.85	136.75-137.75	13	58	4.53	20.21
122.75-123.75	4	26	1.39	9.06	135.75-136.75	13	45	4.53	15.68
121.75-122.75	2	22	.70	7.67	134.75-135.75	7	32	2.44	11.15
120.75-121.75	8	20	2.79	6.97	133.75-134.75	3	25	1.05	8.71
119.75-120.75	3	12	1.05	4.18	132.75-133.75	6	22	2.09	7.67
118.75-119.75	4	9	1.39	3.14	131.75-132.75	6	16	2.09	5.57
117.75-118.75	1	5	.35	1.74	130.75-131.75	1	10	.35	3.48
116.75-117.75	0	4	0.00	1.39	129.75-130.75	2	9	.70	3.14
115.75-116.75	1	4	.35	1.39	128.75-129.75	4	7	1.39	2.44
114.75-115.75	2	3	.70	1.05	127.75-128.75	0	3	0.00	1.05
113.75-114.75	0	1	0.00	.35	126.75-127.75	1	3	.35	1.05
112.75-113.75	1	1	.35	.35	125.75-126.75	0	2	0.00	.70
					124.75-125.75	1	2	.35	.70
					123.75-124.75	1	1	.35	.35

FREQUENCY TABLES FOR CORE-SUBSERIES 1 MEASUREMENTS

5C CHEST HEIGHT					3T SUBSTERNALE HEIGHT				
RANGES	FRQ	CUMF	FRQ%	CUMF%	RANGES	FRQ	CUMF	FRQ%	CUMF%
145.75-146.75	1	287	.35	100.00	139.75-140.75	1	287	.35	100.00
144.75-145.75	0	286	0.00	99.65	138.75-139.75	0	286	0.00	99.65
143.75-144.75	0	286	0.00	99.65	137.75-138.75	0	286	0.00	99.65
142.75-143.75	0	286	0.00	99.65	136.75-137.75	0	286	0.00	99.65
141.75-142.75	1	286	.35	99.65	135.75-136.75	1	286	.35	99.65
140.75-141.75	0	285	0.00	99.30	134.75-135.75	1	285	.35	99.30
139.75-140.75	2	285	.70	99.30	133.75-134.75	1	284	.35	98.95
138.75-139.75	1	283	.35	98.61	132.75-133.75	4	283	1.39	98.61
137.75-138.75	2	282	.70	98.26	131.75-132.75	7	279	2.44	97.21
136.75-137.75	5	280	1.74	97.56	130.75-131.75	2	272	.70	94.77
135.75-136.75	7	275	2.44	95.82	129.75-130.75	13	270	4.53	94.08
134.75-135.75	11	268	3.63	93.38	128.75-129.75	8	257	2.79	89.55
133.75-134.75	7	257	2.44	89.55	127.75-128.75	7	249	2.44	80.76
132.75-133.75	16	250	2.97	87.11	125.75-126.75	14	242	.88	84.32
131.75-132.75	10	234	3.48	81.53	125.75-126.75	22	228	7.67	79.44
130.75-131.75	17	224	5.92	78.05	124.75-125.75	20	206	6.97	71.78
129.75-130.75	19	217	6.62	72.13	123.75-124.75	13	186	4.53	64.61
128.75-129.75	14	188	4.88	65.51	122.75-123.75	26	173	9.36	66.28
127.75-128.75	19	174	6.62	60.63	121.75-122.75	14	147	4.88	51.22
126.75-127.75	26	155	9.36	54.01	120.75-121.75	34	133	11.85	46.34
125.75-126.75	22	129	7.67	44.95	119.75-120.75	22	99	7.67	34.49
124.75-125.75	21	137	7.32	37.28	118.75-119.75	18	77	6.27	26.83
123.75-124.75	16	86	5.57	29.97	117.75-118.75	11	59	3.83	20.56
122.75-123.75	13	70	4.53	24.39	116.75-117.75	5	48	1.74	16.72
121.75-122.75	10	57	3.48	19.86	115.75-116.75	10	43	3.48	14.98
120.75-121.75	13	47	4.53	16.38	114.75-115.75	10	33	3.48	11.50
119.75-120.75	10	34	3.48	11.85	113.75-114.75	8	23	2.79	8.01
118.75-119.75	7	24	2.44	8.36	112.75-113.75	4	15	1.39	5.23
117.75-118.75	5	17	1.74	5.92	111.75-112.75	1	11	.35	3.83
116.75-117.75	1	12	.35	4.18	110.75-111.75	4	10	1.39	3.48
115.75-116.75	4	11	1.39	3.83	109.75-110.75	2	6	.70	2.09
114.75-115.75	2	7	.70	2.44	108.75-109.75	1	4	.35	1.39
113.75-114.75	2	5	.70	1.74	107.75-108.75	1	3	.35	1.05
112.75-113.75	1	3	.35	1.05	106.75-107.75	1	2	.35	.70
111.75-112.75	0	2	0.00	.70	105.75-106.75	0	1	0.00	.35
110.75-111.75	1	2	.35	.70	104.75-105.75	0	1	.00	.35
109.75-110.75	1	1	.35	.35	103.75-104.75	1	1	.35	.35

FREQUENCY TABLES FOR CURE-SUBSERIES 1 MEASUREMENTS

4T ELBOW (RADIALE) HT						5T KNUCKLE HEIGHT					
RANGES	FRQ	CUMF	FRQ%	CUMF%		RANGES	FRQ	CUMF	FRQ%	CUMF%	
125.75-126.75	1	287	.35	100.00		88.75- 89.75	1	287	.35	100.00	
124.75-125.75	6	286	0.00	99.65		87.75- 88.75	6	286	0.00	99.65	
123.75-124.75	0	286	0.00	99.65		86.75- 87.75	1	286	.35	99.65	
122.75-123.75	0	286	0.00	99.65		85.75- 86.75	0	285	0.00	99.30	
121.75-122.75	1	286	.35	99.65		84.75- 85.75	1	285	.35	99.30	
120.75-121.75	3	285	1.05	99.30		83.75- 84.75	3	284	1.05	98.95	
119.75-120.75	1	282	.35	98.26		82.75- 83.75	6	281	2.09	97.91	
118.75-119.75	3	281	1.05	97.91		81.75- 82.75	6	275	2.09	95.82	
117.75-118.75	5	278	1.74	96.06		80.75- 81.75	8	269	2.79	93.73	
116.75-117.75	6	273	2.09	95.12		79.75- 80.75	15	261	5.23	90.94	
115.75-116.75	9	267	3.14	93.03		78.75- 79.75	19	246	0.62	85.71	
114.75-115.75	8	258	2.79	89.90		77.75- 78.75	24	227	8.36	79.09	
113.75-114.75	17	250	5.92	87.11		76.75- 77.75	24	203	8.36	70.73	
112.75-113.75	19	233	6.62	81.18		75.75- 76.75	27	179	9.41	62.37	
111.75-112.75	17	214	5.92	74.56		74.75- 75.75	26	152	9.06	52.96	
110.75-111.75	24	197	8.36	68.64		73.75- 74.75	27	126	3.41	43.90	
109.75-110.75	26	173	9.06	60.28		72.75- 73.75	33	99	11.50	34.49	
108.75-109.75	18	147	6.27	51.22		71.75- 72.75	16	66	5.57	23.00	
107.75-108.75	22	129	7.67	44.95		70.75- 71.75	15	50	5.23	17.42	
106.75-107.75	18	107	6.27	37.28		69.75- 70.75	14	35	4.88	12.20	
105.75-106.75	22	89	7.67	31.01		68.75- 69.75	7	21	2.44	7.32	
104.75-105.75	16	67	5.57	23.34		67.75- 68.75	5	14	1.74	4.88	
103.75-104.75	19	51	6.62	17.77		66.75- 67.75	4	9	1.39	3.14	
102.75-103.75	7	32	2.44	11.15		65.75- 66.75	2	5	.70	1.74	
101.75-102.75	4	25	1.39	8.71		64.75- 65.75	2	3	.70	1.05	
100.75-101.75	6	21	2.09	7.32		63.75- 64.75	0	1	0.00	.35	
99.75-100.75	8	15	2.79	5.23		62.75- 63.75	0	1	0.00	.35	
98.75- 99.75	1	7	.35	2.44		61.75- 62.75	1	1	.35	.35	
97.75- 98.75	2	6	.70	2.09							
96.75- 97.75	0	4	0.00	1.39							
95.75- 96.75	2	4	.70	1.39							
94.75- 95.75	1	2	.35	.70							
93.75- 94.75	1	1	.35	.35							

FREQUENCY TABLES FOR CORE-SUBSERIES 1 MEASUREMENTS

6C WAIST HEIGHT					6C BUTTOCK HEIGHT				
RANGES	FRQ	CUMF	FRQ%	CUMF%	RANGES	FRQ	CUMF	FRQ%	CUMF%
118.75-119.75	2	287	.76	100.00	104.75-105.75	1	287	.35	100.00
117.75-118.75	0	285	0.00	99.30	103.75-104.75	0	286	0.00	99.65
116.75-117.75	2	285	.76	99.30	102.75-103.75	1	286	.35	99.65
115.75-116.75	1	283	.35	98.61	101.75-102.75	1	265	.35	99.30
114.75-115.75	5	282	1.74	98.26	100.75-101.75	1	284	.35	98.95
113.75-114.75	8	277	2.79	96.52	99.75-100.75	1	283	.32	98.61
112.75-113.75	4	269	1.39	93.73	98.75- 99.75	4	262	1.39	98.26
111.75-112.75	3	265	1.05	92.33	97.75- 98.75	7	278	2.44	96.86
110.75-111.75	11	262	3.83	91.29	96.75- 97.75	4	271	1.39	94.43
109.75-110.75	12	251	4.16	87.46	95.75- 96.75	10	267	3.48	93.03
108.75-109.75	13	239	4.53	83.28	94.75- 95.75	12	257	4.18	89.55
107.75-108.75	18	226	6.27	78.75	93.75- 94.75	10	245	3.48	85.37
106.75-107.75	8	208	2.79	72.47	92.75- 93.75	17	235	5.92	81.88
105.75-106.75	17	200	5.92	69.69	91.75- 92.75	18	218	6.27	75.96
104.75-105.75	24	183	8.36	63.76	90.75- 91.75	28	200	9.76	69.69
103.75-104.75	30	159	10.45	55.40	89.75- 90.75	19	172	6.62	59.93
102.75-103.75	17	129	5.92	44.95	88.75- 89.75	29	153	10.10	53.31
101.75-102.75	16	112	5.57	39.42	87.75- 88.75	28	124	9.70	43.21
100.75-101.75	17	96	5.92	33.45	86.75- 87.75	17	96	5.92	33.45
99.75-100.75	16	79	5.57	27.53	85.75- 86.75	13	79	4.53	27.53
98.75- 99.75	10	63	3.48	21.95	84.75- 85.75	14	66	4.88	23.00
97.75- 98.75	12	53	4.18	18.47	83.75- 84.75	13	52	4.53	18.12
96.75- 97.75	7	41	2.44	14.29	82.75- 83.75	11	39	3.83	13.59
95.75- 96.75	7	34	2.44	11.85	81.75- 82.75	5	28	1.74	9.76
94.75- 95.75	10	27	3.48	9.41	80.75- 81.75	7	23	2.44	8.31
93.75- 94.75	7	17	2.44	5.92	79.75- 80.75	6	16	2.09	5.57
92.75- 93.75	5	10	1.74	3.48	78.75- 79.75	4	10	1.39	3.48
91.75- 92.75	1	5	.35	1.74	77.75- 78.75	2	6	.71	2.09
90.75- 91.75	3	4	1.05	1.39	76.75- 77.75	3	4	1.05	1.39
89.75- 90.75	1	1	.35	.35	75.75- 76.75	0	1	0.00	.35
					74.75- 75.75	1	1	.35	.35

FREQUENCY TABLES FOR CORE-SUBSERIES 1 MEASUREMENTS

7T GLUTEAL FURROW HGT					8T TIBIALE HEIGHT				
RANGES	FRQ	CUMF	FRQ%	CUMF%	RANGES	FRQ	CUMF	FRQ%	CUMF%
93.75- 94.75	1	287	.35	100.00	55.75- 56.25	1	283	.35	100.00
92.75- 93.75	0	286	0.00	99.65	55.25- 55.75	1	282	.35	99.05
91.75- 92.75	0	286	0.00	99.65	54.75- 55.25	1	281	.35	99.23
90.75- 91.75	2	286	.70	99.65	54.25- 54.75	2	280	.71	98.94
89.75- 90.75	1	284	.35	98.95	53.75- 54.25	1	278	.35	98.23
88.75- 89.75	5	283	1.74	98.61	53.25- 53.75	1	277	.35	97.88
87.75- 88.75	10	278	3.48	96.86	52.75- 53.25	5	276	1.77	97.53
86.75- 87.75	6	268	2.09	93.38	52.25- 52.75	11	271	3.89	95.76
85.75- 86.75	7	262	2.44	91.29	51.75- 52.25	11	260	3.89	91.87
84.75- 85.75	9	255	3.14	88.85	51.25- 51.75	16	249	3.53	87.99
83.75- 84.75	16	246	5.57	85.71	50.75- 51.25	11	239	3.89	84.45
82.75- 83.75	25	230	8.71	80.14	50.25- 50.75	17	228	6.01	80.57
81.75- 82.75	19	215	6.62	71.43	49.75- 50.25	15	211	5.30	74.56
80.75- 81.75	29	186	10.10	64.81	49.25- 49.75	16	196	5.65	69.26
79.75- 80.75	29	157	10.10	54.70	48.75- 49.25	21	180	7.42	63.60
78.75- 79.75	25	128	8.71	44.60	48.25- 48.75	18	159	6.36	56.18
77.75- 78.75	24	103	8.36	35.89	47.75- 48.25	15	141	5.30	49.82
76.75- 77.75	23	79	8.01	27.53	47.25- 47.75	26	126	9.19	44.52
75.75- 76.75	16	56	5.57	19.51	46.75- 47.25	20	100	7.07	35.34
74.75- 75.75	10	40	3.48	13.94	46.25- 46.75	24	84	8.48	28.27
73.75- 74.75	11	30	3.83	16.45	45.75- 46.25	13	56	4.59	14.79
72.75- 73.75	6	19	2.09	6.62	45.25- 45.75	12	43	4.24	15.19
71.75- 72.75	7	13	2.44	4.53	44.75- 45.25	9	31	3.18	10.95
70.75- 71.75	3	6	1.05	2.09	44.25- 44.75	2	22	.71	7.77
69.75- 70.75	1	3	.35	1.05	43.75- 44.25	3	20	1.06	7.07
68.75- 69.75	1	2	.35	.70	43.25- 43.75	3	17	1.06	6.01
67.75- 68.75	0	1	0.00	.35	42.75- 43.25	4	14	1.41	4.95
66.75- 67.75	0	1	0.00	.35	42.25- 42.75	3	10	1.06	3.53
65.75- 66.75	1	1	.35	.35	41.75- 42.25	3	7	1.06	2.47
					41.25- 41.75	1	4	.35	1.41
					40.75- 41.25	0	3	0.00	1.06
					40.25- 40.75	3	3	1.06	1.06

FREQUENCY TABLES FOR CORE-SUBSERIES 1 MEASUREMENTS

9T ACROMION-RADIALE L					10T RADIALE-STYLIUM LH				
RANGES	FRQ	CUMF	FRQ%	CUMF%	RANGES	FRQ	CUMF	FRQ%	CUMF%
39.25- 39.55	1	287	.35	100.00	31.35- 31.55	1	287	.35	100.00
38.95- 39.25	0	286	0.00	99.65	31.15- 31.35	0	286	0.00	99.65
38.65- 38.95	1	286	.35	99.65	30.95- 31.15	0	286	0.00	99.65
38.35- 38.65	0	285	0.00	99.30	30.75- 30.95	0	286	0.00	99.65
38.05- 38.35	0	285	0.00	99.30	30.55- 30.75	4	285	1.33	99.30
37.75- 38.05	2	285	.70	99.30	30.35- 30.55	2	281	.70	97.91
37.45- 37.75	2	283	.70	98.61	29.95- 30.15	2	279	.70	97.21
37.15- 37.45	1	281	.35	97.91	29.75- 29.95	2	277	.70	96.52
36.85- 37.15	6	280	2.09	97.56	29.55- 29.75	4	275	1.39	95.82
36.55- 36.85	4	274	1.39	95.47	29.35- 29.55	1	271	.33	94.43
36.25- 36.55	9	273	3.14	94.08	29.15- 29.35	5	270	1.74	94.08
35.95- 36.25	7	261	2.44	90.94	28.95- 29.15	1	265	.35	92.33
35.65- 35.95	10	254	3.48	88.50	28.75- 28.95	7	264	2.44	91.99
35.35- 35.65	16	244	5.57	85.02	28.55- 28.75	9	257	3.14	89.55
35.05- 35.35	9	228	3.14	79.44	28.35- 28.55	12	248	4.18	86.41
34.75- 35.05	17	219	5.92	76.31	28.15- 28.35	5	236	1.74	82.23
34.45- 34.75	16	202	5.57	76.38	28.05- 28.15	11	231	3.83	80.49
34.15- 34.45	18	186	6.27	64.81	27.75- 27.95	12	220	4.18	76.66
33.85- 34.15	15	168	5.23	58.54	27.55- 27.75	20	208	5.97	72.47
33.55- 33.85	18	153	6.27	53.31	27.35- 27.55	14	188	4.88	69.21
33.25- 33.55	15	135	5.23	47.04	27.15- 27.35	5	174	1.74	64.63
32.95- 33.25	20	126	6.97	41.81	26.95- 27.15	13	169	4.53	58.89
32.65- 32.95	13	103	4.53	34.84	26.75- 26.95	10	156	3.48	54.36
32.35- 32.65	23	87	8.31	30.31	26.55- 26.75	17	146	5.92	50.87
32.05- 32.35	16	64	5.57	22.30	26.35- 26.55	10	129	3.48	44.95
31.75- 32.05	15	48	5.23	16.72	26.15- 26.35	18	119	6.27	41.46
31.45- 31.75	7	33	2.44	11.50	25.95- 26.15	18	101	6.27	35.19
31.15- 31.45	9	26	3.14	9.06	25.75- 25.95	17	83	5.92	28.92
30.85- 31.15	2	17	.70	5.92	25.55- 25.75	11	66	3.83	23.00
30.55- 30.85	2	15	.70	5.23	25.35- 25.55	13	55	4.53	19.16
30.25- 30.55	4	13	1.39	4.53	25.15- 25.35	6	42	2.09	14.63
29.95- 30.25	4	9	1.39	3.14	24.95- 25.15	10	36	3.48	12.54
29.65- 29.95	0	5	0.00	1.74	24.75- 24.95	2	26	.70	9.06
29.35- 29.65	2	5	.70	1.74	24.55- 24.75	4	24	1.39	8.30
29.05- 29.35	1	3	.35	1.05	24.35- 24.55	6	20	2.09	5.97
28.75- 29.05	1	2	.35	.70	24.15- 24.35	7	14	1.74	4.88
28.45- 28.75	0	1	0.00	.35	23.95- 24.15	1	9	.35	3.14
28.15- 28.45	0	1	0.00	.35	23.75- 23.95	1	8	.35	2.79
27.85- 28.15	1	1	.35	.35	23.55- 23.75	2	7	.70	2.44
					23.35- 23.55	2	5	.70	1.74
					23.15- 23.35	0	3	0.00	1.05
					22.95- 23.15	0	3	0.00	1.05
					22.75- 22.95	1	3	.35	1.05
					22.55- 22.75	0	2	0.00	.70
					22.35- 22.55	0	2	0.00	.70
					22.15- 22.35	0	2	0.00	.70
					21.95- 22.15	1	2	.35	.70
					21.75- 21.95	0	1	0.00	.35
					21.55- 21.75	1	1	.35	.35

FREQUENCY TABLES FOR CORE-SUBSERIES 1 MEASUREMENTS

11C SITTING HEIGHT				
RANGES	FRQ	CUMF	FRQ%	CUMF%
99.75-100.25	2	287	.70	100.00
99.25- 99.75	0	285	0.00	99.30
98.75- 99.25	0	285	0.00	99.30
98.25- 98.75	0	285	0.00	99.30
97.75- 98.25	2	285	.70	99.30
97.25- 97.75	1	283	.35	98.61
96.75- 97.25	2	282	.70	98.26
96.25- 96.75	5	280	1.74	97.56
95.75- 96.25	2	275	.70	95.82
95.25- 95.75	5	273	1.74	95.12
94.75- 95.25	2	268	.70	93.38
94.25- 94.75	4	266	1.39	92.68
93.75- 94.25	6	262	2.09	91.29
93.25- 93.75	8	256	2.79	89.20
92.75- 93.25	6	248	2.09	86.41
92.25- 92.75	10	242	3.48	84.32
91.75- 92.25	18	232	6.27	80.84
91.25- 91.75	11	214	3.83	74.56
90.75- 91.25	9	203	3.14	70.73
90.25- 90.75	13	194	4.53	67.60
89.75- 90.25	19	181	6.62	63.07
89.25- 89.75	16	162	5.57	56.45
88.75- 89.25	19	146	6.62	50.87
88.25- 88.75	22	127	7.67	44.25
87.75- 88.25	14	105	4.88	36.59
87.25- 87.75	19	91	6.62	31.71
86.75- 87.25	10	72	3.48	25.09
86.25- 86.75	12	62	4.18	21.60
85.75- 86.25	10	50	3.48	17.42
85.25- 85.75	4	40	1.39	13.94
84.75- 85.25	7	36	2.44	12.54
84.25- 84.75	5	29	1.74	10.10
83.75- 84.25	6	24	2.09	8.36
83.25- 83.75	6	18	2.09	6.27
82.75- 83.25	2	12	.70	4.18
82.25- 82.75	1	10	.35	3.48
81.75- 82.25	3	9	1.05	3.14
81.25- 81.75	2	6	.70	2.09
80.75- 81.25	1	4	.35	1.39
80.25- 80.75	1	3	.35	1.05
79.75- 80.25	0	2	0.00	.70
79.25- 79.75	0	2	0.00	.70
78.75- 79.25	1	2	.35	.70
78.25- 78.75	0	1	0.00	.35
77.75- 78.25	1	1	.35	.35

12C EYE HEIGHT/SITTING				
RANGES	FRQ	CUMF	FRQ%	CUMF%
86.25- 86.75	2	287	.70	100.00
85.75- 86.25	1	285	.35	99.30
85.25- 85.75	0	284	0.00	98.95
84.75- 85.25	2	284	.70	98.95
84.25- 84.75	2	282	.70	98.26
83.75- 84.25	4	280	1.39	97.56
83.25- 83.75	2	276	.70	96.17
82.75- 83.25	7	274	2.44	95.47
82.25- 82.75	4	267	1.39	93.03
81.75- 82.25	6	263	2.09	91.64
81.25- 81.75	9	257	3.14	89.55
80.75- 81.25	8	248	2.79	86.41
80.25- 80.75	0	244	2.09	83.62
79.75- 80.25	13	234	4.53	81.53
79.25- 79.75	16	221	5.57	77.00
78.75- 79.25	13	205	4.53	71.43
78.25- 78.75	16	192	5.57	66.90
77.75- 78.25	17	176	5.92	61.32
77.25- 77.75	18	159	6.27	55.40
76.75- 77.25	15	141	5.23	49.13
76.25- 76.75	21	126	7.32	43.90
75.75- 76.25	17	115	5.92	36.59
75.25- 75.75	15	88	5.23	30.66
74.75- 75.25	18	73	6.27	25.44
74.25- 74.75	10	55	3.48	19.16
73.75- 74.25	9	45	3.14	15.68
73.25- 73.75	9	36	3.14	12.54
72.75- 73.25	7	27	2.44	9.41
72.25- 72.75	4	20	1.39	6.97
71.75- 72.25	3	16	1.05	5.57
71.25- 71.75	2	13	.70	4.53
70.75- 71.25	3	11	1.05	3.83
70.25- 70.75	2	8	.70	2.79
69.75- 70.25	3	6	1.05	2.09
69.25- 69.75	0	3	0.00	1.05
68.75- 69.25	0	3	0.00	1.05
68.25- 68.75	1	3	.35	1.05
67.75- 68.25	0	2	0.00	.70
67.25- 67.75	1	2	.35	.70
66.75- 67.25	1	1	.35	.35

FREQUENCY TABLES FOR CORE-SUBSERIES 1 MEASUREMENTS

13C SHOULDER-ELBOW LTH				
RANGES	FRQ	CUMF	FRQ%	CUMF%
41.65- 41.95	1	267	.35	100.00
41.35- 41.65	0	266	0.00	99.65
41.05- 41.35	1	266	.35	99.65
40.75- 41.05	1	265	.35	99.30
40.45- 40.75	1	264	.35	98.95
40.15- 40.45	2	263	.70	98.01
39.85- 40.15	2	261	.70	97.91
39.55- 39.85	4	274	1.39	97.21
39.25- 39.55	7	275	2.44	95.82
38.95- 39.25	4	208	1.39	93.38
38.65- 38.95	7	264	2.44	91.99
38.35- 38.65	8	257	2.79	89.55
38.05- 38.35	10	249	3.48	86.76
37.75- 38.05	19	239	6.62	83.28
37.45- 37.75	11	220	3.83	76.66
37.15- 37.45	13	209	4.53	72.82
36.85- 37.15	13	196	4.53	68.29
36.55- 36.85	24	183	8.36	63.76
36.25- 36.55	19	159	6.62	55.40
35.95- 36.25	12	140	4.18	48.78
35.65- 35.95	17	128	5.92	44.60
35.35- 35.65	24	111	8.36	38.68
35.05- 35.35	13	87	4.53	30.31
34.75- 35.05	21	74	7.32	25.78
34.45- 34.75	15	53	5.23	18.47
34.15- 34.45	7	38	2.44	13.24
33.85- 34.15	7	31	2.44	10.80
33.55- 33.85	7	24	2.44	8.36
33.25- 33.55	5	17	1.74	5.92
32.95- 33.25	1	12	.35	4.18
32.65- 32.95	4	11	1.39	3.83
32.35- 32.65	2	7	.70	2.44
32.05- 32.35	1	5	.35	1.74
31.75- 32.05	0	4	0.00	1.39
31.45- 31.75	2	4	.70	1.39
31.15- 31.45	2	2	.70	.70

11T ELBOW-GRIP LENGTH				
RANGES	FRQ	CUMF	FRQ%	CUMF%
40.75- 41.05	1	287	.35	100.00
40.45- 40.75	3	286	0.00	99.65
40.15- 40.45	1	286	.35	99.65
39.85- 40.15	1	285	.35	99.30
39.55- 39.85	2	284	.70	98.95
39.25- 39.55	1	282	.35	98.26
38.95- 39.25	3	281	1.05	97.91
38.65- 38.95	1	278	.35	96.56
38.35- 38.65	5	277	1.74	96.52
38.05- 38.35	2	272	.70	94.77
37.75- 38.05	4	270	1.39	94.00
37.45- 37.75	0	266	2.09	92.58
37.15- 37.45	6	260	2.09	90.59
36.85- 37.15	9	254	3.14	88.50
36.55- 36.85	15	245	5.23	85.37
36.25- 36.55	14	230	4.88	80.14
35.95- 36.25	10	216	3.48	75.26
35.65- 35.95	21	206	7.32	71.78
35.35- 35.65	14	185	4.88	64.46
35.05- 35.35	21	171	7.32	59.58
34.75- 35.05	21	158	7.32	52.26
34.45- 34.75	19	129	6.62	44.95
34.15- 34.45	16	113	5.57	38.33
33.85- 34.15	20	94	6.97	32.75
33.55- 33.85	11	74	3.83	25.78
33.25- 33.55	12	63	4.18	21.95
32.95- 33.25	12	51	4.18	17.77
32.65- 32.95	6	39	2.09	13.59
32.35- 32.65	6	33	2.09	11.50
32.05- 32.35	9	27	3.14	9.41
31.75- 32.05	2	18	.70	6.27
31.45- 31.75	3	16	1.05	5.57
31.15- 31.45	4	13	1.39	4.53
30.85- 31.15	3	9	1.05	3.14
30.55- 30.85	3	6	1.05	2.09
30.25- 30.55	4	3	1.40	1.05
29.95- 30.25	1	3	.35	1.05
29.65- 29.95	1	2	.35	.70
29.35- 29.65	0	1	0.00	.35
29.05- 29.35	0	1	0.00	.35
28.75- 29.05	0	1	0.00	.35
28.45- 28.75	0	1	0.00	.35
28.15- 28.45	1	1	.35	.35

FREQUENCY TABLES FOR CORE-SUBSERIES 1 MEASUREMENTS

14C ELBOW-FINGERTIP LH				
RANGES	FRQ	CUMF	FRQ%	CUMF%
54.55- 54.85	1	287	.35	100.00
54.25- 54.55	1	286	.35	99.65
53.95- 54.25	0	285	0.00	99.30
53.65- 53.95	0	285	0.00	99.30
53.35- 53.65	2	285	.70	99.30
53.05- 53.35	2	283	.70	98.61
52.75- 53.05	1	281	.35	97.91
52.45- 52.75	3	280	1.05	97.56
52.15- 52.45	2	277	.70	96.52
51.85- 52.15	4	275	1.39	95.82
51.55- 51.85	4	271	1.39	94.43
51.25- 51.55	3	267	1.05	93.03
50.95- 51.25	6	264	2.09	91.99
50.65- 50.95	4	258	1.39	89.90
50.35- 50.65	5	254	1.74	88.50
50.05- 50.35	8	249	2.79	86.76
49.75- 50.05	12	241	4.18	83.97
49.45- 49.75	10	229	3.48	79.79
49.15- 49.45	10	219	3.48	76.31
48.85- 49.15	12	209	4.18	72.82
48.55- 48.85	13	197	4.53	68.64
48.25- 48.55	21	184	7.32	64.11
47.95- 48.25	11	163	3.83	56.79
47.65- 47.95	13	152	4.53	52.96
47.35- 47.65	13	139	4.53	48.43
47.05- 47.35	19	126	6.62	43.90
46.75- 47.05	11	107	3.83	37.28
46.45- 46.75	14	96	4.88	33.45
46.15- 46.45	14	82	4.88	28.57
45.85- 46.15	9	68	3.14	23.69
45.55- 45.85	7	59	2.44	20.56
45.25- 45.55	11	52	3.83	18.12
44.95- 45.25	9	41	3.14	14.29
44.65- 44.95	5	32	1.74	11.15
44.35- 44.65	4	27	1.39	9.41
44.05- 44.35	3	23	1.05	8.01
43.75- 44.05	5	20	1.74	6.97
43.45- 43.75	4	15	1.39	5.23
43.15- 43.45	3	11	1.05	3.83
42.85- 43.15	2	8	.70	2.79
42.55- 42.85	1	6	.35	2.09
42.25- 42.55	0	5	0.00	1.74
41.95- 42.25	2	5	.70	1.74
41.65- 41.95	0	3	0.00	1.05
41.35- 41.65	0	3	0.00	1.05
41.05- 41.35	0	3	0.00	1.05
40.75- 41.05	1	3	.35	1.05
40.45- 40.75	0	2	0.00	.70
40.15- 40.45	0	2	0.00	.70
39.85- 40.15	2	2	.70	.70

15C KNEE HEIGHT/SIT				
RANGES	FRQ	CUMF	FRQ%	CUMF%
62.75- 63.25	2	287	.70	100.00
62.25- 62.75	1	285	.35	99.30
61.75- 62.25	2	284	.70	98.95
61.25- 61.75	2	282	.70	98.26
60.75- 61.25	1	280	.35	97.56
60.25- 60.75	4	279	1.39	97.21
59.75- 60.25	5	275	1.74	95.82
59.25- 59.75	10	270	3.48	94.08
58.75- 59.25	9	260	3.14	90.59
58.25- 58.75	10	251	3.48	87.46
57.75- 58.25	9	241	3.14	83.97
57.25- 57.75	9	232	3.14	80.84
56.75- 57.25	17	223	5.92	77.70
56.25- 56.75	19	206	6.62	71.78
55.75- 56.25	15	187	5.23	65.16
55.25- 55.75	24	172	8.36	59.93
54.75- 55.25	18	148	6.27	51.57
54.25- 54.75	18	130	6.27	45.30
53.75- 54.25	15	112	5.23	39.02
53.25- 53.75	22	97	7.67	33.80
52.75- 53.25	17	75	5.92	26.13
52.25- 52.75	14	58	4.88	20.21
51.75- 52.25	7	44	2.44	15.33
51.25- 51.75	11	37	3.83	12.89
50.75- 51.25	6	26	2.09	9.06
50.25- 50.75	6	20	2.09	6.97
49.75- 50.25	1	14	.35	4.88
49.25- 49.75	4	13	1.39	4.53
48.75- 49.25	3	9	1.15	3.14
48.25- 48.75	1	6	.35	2.09
47.75- 48.25	1	5	.35	1.74
47.25- 47.75	1	4	.35	1.39
46.75- 47.25	1	1	.35	.35

FREQUENCY TABLES FOR CORE-SUBSERIES 1 MEASUREMENTS

16C POPLITEAL HEIGHT				
RANGES	FRQ	CUMF	FRQ%	CUMF%
51.75- 52.25	1	287	.35	100.00
51.25- 51.75	0	286	0.00	99.65
50.75- 51.25	2	286	.70	99.65
50.25- 50.75	1	284	.35	98.95
49.75- 50.25	1	283	.35	98.01
49.25- 49.75	4	282	1.39	98.26
48.75- 49.25	6	278	2.09	96.86
48.25- 48.75	6	272	2.09	94.77
47.75- 48.25	8	266	2.79	92.68
47.25- 47.75	11	256	3.83	89.90
46.75- 47.25	13	247	4.53	86.06
46.25- 46.75	16	234	5.57	81.53
45.75- 46.25	16	218	5.57	75.96
45.25- 45.75	18	202	6.27	70.38
44.75- 45.25	18	184	6.27	64.11
44.25- 44.75	17	166	5.92	57.84
43.75- 44.25	24	149	8.36	51.92
43.25- 43.75	29	125	10.16	43.55
42.75- 43.25	17	96	5.92	33.45
42.25- 42.75	16	79	5.57	27.53
41.75- 42.25	18	63	6.27	21.95
41.25- 41.75	11	45	3.83	15.08
40.75- 41.25	0	34	2.09	11.05
40.25- 40.75	8	26	2.79	9.76
39.75- 40.25	7	20	2.41	6.37
39.25- 39.75	2	13	.70	.53
38.75- 39.25	3	11	1.05	3.83
38.25- 38.75	2	8	.70	2.79
37.75- 38.25	1	6	.35	2.09
37.25- 37.75	4	5	1.39	1.74
36.75- 37.25	1	1	.35	.35

17C BUTTOCK-KNEE LENGTH				
RANGES	FRQ	CUMF	FRQ%	CUMF%
70.25- 70.75	1	287	.35	100.00
69.75- 70.25	0	286	0.00	99.65
69.25- 69.75	1	286	.35	99.65
68.75- 69.25	0	285	0.00	99.30
68.25- 68.75	0	285	0.00	99.30
67.75- 68.25	0	265	0.00	99.30
67.25- 67.75	2	285	.70	99.30
66.75- 67.25	2	283	.70	98.61
66.25- 66.75	4	261	1.39	97.91
65.75- 66.25	5	277	1.74	96.52
65.25- 65.75	9	272	3.14	94.77
64.75- 65.25	5	263	1.74	91.64
64.25- 64.75	7	256	2.44	89.90
63.75- 64.25	11	251	3.83	87.46
63.25- 63.75	12	240	4.18	83.62
62.75- 63.25	19	228	6.02	79.44
62.25- 62.75	16	209	5.57	72.82
61.75- 62.25	11	193	3.83	67.25
61.25- 61.75	22	182	7.67	63.41
60.75- 61.25	21	160	7.32	55.75
60.25- 60.75	13	139	4.53	48.43
59.75- 60.25	18	126	6.27	43.90
59.25- 59.75	17	108	5.92	37.63
58.75- 59.25	13	91	4.53	31.71
58.25- 58.75	15	78	5.23	27.15
57.75- 58.25	17	63	5.92	21.95
57.25- 57.75	10	46	3.48	16.03
56.75- 57.25	13	36	4.53	12.24
56.25- 56.75	4	23	1.39	8.01
55.75- 56.25	6	19	2.09	6.62
55.25- 55.75	4	13	1.39	4.03
54.75- 55.25	1	9	.35	3.14
54.25- 54.75	3	8	0.00	2.79
53.75- 54.25	3	8	1.05	2.79
53.25- 53.75	3	5	1.05	1.74
52.75- 53.25	6	2	0.00	.70
52.25- 52.75	2	2	.70	.70

FREQUENCY TABLES FOR CORE-SUBSERIES 1 MEASUREMENTS

18C CHEST DEPTH				
RANGES	FRQ	CUMF	FRQ%	CUMF%
27.15- 27.35	2	287	.70	100.00
26.95- 27.15	6	285	0.00	99.30
26.75- 26.95	0	285	0.00	99.30
26.55- 26.75	1	285	.35	99.30
26.35- 26.55	2	284	.70	98.95
26.15- 26.35	5	282	1.74	98.26
25.95- 26.15	3	277	1.05	96.52
25.75- 25.95	0	274	0.00	95.47
25.55- 25.75	2	274	.70	95.47
25.35- 25.55	1	272	.35	94.77
25.15- 25.35	2	271	.70	94.43
24.95- 25.15	1	269	.35	93.73
24.75- 24.95	4	268	1.39	93.38
24.55- 24.75	4	264	1.39	91.99
24.35- 24.55	8	260	2.79	90.59
24.15- 24.35	2	252	.70	87.80
23.95- 24.15	4	250	1.39	87.11
23.75- 23.95	9	240	3.14	85.71
23.55- 23.75	3	237	1.05	82.58
23.35- 23.55	3	234	1.05	81.53
23.15- 23.35	10	231	3.48	80.49
22.95- 23.15	6	221	2.09	77.00
22.75- 22.95	5	215	1.74	74.91
22.55- 22.75	7	210	2.44	73.17
22.35- 22.55	10	203	3.48	70.73
22.15- 22.35	14	193	4.88	67.25
21.95- 22.15	9	179	3.14	62.37
21.75- 21.95	5	176	1.74	59.23
21.55- 21.75	10	165	3.48	57.49
21.35- 21.55	12	155	4.18	54.01
21.15- 21.35	11	143	3.83	49.83
20.95- 21.15	12	132	4.18	45.99
20.75- 20.95	14	120	4.88	41.81
20.55- 20.75	10	106	3.48	36.93
20.35- 20.55	15	96	5.23	33.45
20.15- 20.35	12	81	4.18	28.22
19.95- 20.15	12	69	4.18	24.04
19.75- 19.95	15	57	5.23	19.86
19.55- 19.75	8	42	2.79	14.63
19.35- 19.55	8	34	2.79	11.85
19.15- 19.35	7	26	2.44	9.06
18.95- 19.15	4	19	1.39	6.62
18.75- 18.95	3	15	1.05	5.23
18.55- 18.75	3	12	1.05	4.18
18.35- 18.55	2	9	.70	3.14
18.15- 18.35	2	7	.70	2.44
17.95- 18.15	1	5	.35	1.74
17.75- 17.95	2	4	.70	1.39
17.55- 17.75	0	2	0.00	.70
17.35- 17.55	2	2	.70	.70

19C WAIST DEPTH				
RANGES	FRQ	CUMF	FRQ%	CUMF%
28.75- 29.05	1	286	.36	100.00
28.45- 28.75	0	279	0.00	99.64
28.15- 28.45	1	279	.36	99.64
27.85- 28.15	0	278	0.00	99.29
27.55- 27.85	0	278	0.00	99.29
27.25- 27.55	3	278	0.00	99.29
26.95- 27.25	0	278	0.00	99.29
26.65- 26.95	1	278	.36	99.29
26.35- 26.65	3	277	1.07	98.93
26.05- 26.35	1	274	.36	97.86
25.75- 26.05	2	273	.71	97.50
25.45- 25.75	2	271	.71	96.79
25.15- 25.45	0	269	0.00	96.07
24.85- 25.15	4	269	1.43	96.07
24.55- 24.85	1	265	.36	94.64
24.25- 24.55	2	264	.71	94.29
23.95- 24.25	1	262	.36	93.57
23.65- 23.95	3	261	1.07	93.21
23.35- 23.65	6	258	2.14	92.14
23.05- 23.35	3	252	1.07	90.00
22.75- 23.05	6	249	2.14	88.93
22.45- 22.75	6	243	2.14	86.79
22.15- 22.45	5	237	1.79	84.64
21.85- 22.15	7	232	2.50	82.86
21.55- 21.85	11	225	3.93	80.36
21.25- 21.55	17	214	6.07	76.43
20.95- 21.25	12	197	4.29	70.36
20.65- 20.95	10	185	3.57	66.07
20.35- 20.65	14	175	5.00	62.50
20.05- 20.35	15	161	5.36	57.50
19.75- 20.05	16	146	5.71	52.14
19.45- 19.75	18	130	3.57	46.43
19.15- 19.45	22	120	7.86	42.86
18.85- 19.15	17	98	6.07	35.00
18.55- 18.85	13	81	4.64	28.93
18.25- 18.55	17	68	6.07	24.29
17.95- 18.25	15	51	5.36	18.21
17.65- 17.95	17	36	6.07	12.86
17.35- 17.65	9	19	3.21	6.79
17.05- 17.35	4	10	1.43	3.57
16.75- 17.05	2	6	.71	2.14
16.45- 16.75	2	4	.71	1.43
16.15- 16.45	1	2	.36	.71
15.85- 16.15	1	1	.36	.36

FREQUENCY TABLES FOR CORE-SUBSERIES 1 MEASUREMENTS

16T BIACROMIAL BREADTH					25C SHOULDER CIRCUMFER				
RANGES	FRQ	CUMF	FRQ%	CUMF%	RANGES	FRQ	CUMF	FRQ%	CUMF%
44.65- 44.95	1	287	.35	100.00	129.75-130.75	1	287	.35	100.00
44.35- 44.65	1	286	.35	99.65	128.75-129.75	1	286	.35	99.65
44.05- 44.35	0	285	0.00	99.30	127.75-128.75	0	285	0.00	99.30
43.75- 44.05	1	285	.35	99.30	126.75-127.75	0	285	0.00	99.30
43.45- 43.75	3	284	1.05	98.95	125.75-126.75	0	285	0.00	99.30
43.15- 43.45	1	281	.35	97.91	124.75-125.75	3	285	1.15	99.30
42.85- 43.15	4	280	1.39	97.56	123.75-124.75	2	282	.70	98.26
42.55- 42.85	5	276	1.74	96.17	122.75-123.75	1	260	.35	97.56
42.25- 42.55	4	271	1.39	94.43	121.75-122.75	4	279	1.39	97.21
41.95- 42.25	6	267	2.09	93.03	120.75-121.75	9	275	3.14	95.82
41.65- 41.95	8	261	2.79	90.94	119.75-120.75	2	266	.70	92.68
41.35- 41.65	16	253	5.57	68.15	118.75-119.75	10	264	3.48	91.99
41.05- 41.35	10	237	3.48	82.58	117.75-118.75	9	254	3.14	88.20
40.75- 41.05	17	227	5.92	79.09	116.75-117.75	14	245	3.48	85.37
40.45- 40.75	18	216	6.27	73.17	115.75-116.75	16	235	5.57	81.88
40.15- 40.45	18	192	6.27	66.90	114.75-115.75	6	219	2.09	76.31
39.85- 40.15	18	174	6.27	60.63	113.75-114.75	14	213	4.88	74.22
39.55- 39.85	12	156	4.18	54.36	112.75-113.75	13	199	4.53	69.34
39.25- 39.55	12	144	4.18	50.17	111.75-112.75	15	186	5.23	64.81
38.95- 39.25	17	132	5.92	45.99	110.75-111.75	21	171	7.32	59.58
38.65- 38.95	16	115	5.57	40.67	109.75-110.75	25	150	8.71	52.26
38.35- 38.65	21	99	7.32	34.49	108.75-109.75	13	125	4.53	43.55
38.05- 38.35	12	78	4.18	27.18	107.75-108.75	17	112	5.92	39.02
37.75- 38.05	10	66	3.48	23.00	106.75-107.75	18	95	6.27	33.10
37.45- 37.75	14	56	4.88	19.51	105.75-106.75	21	77	7.32	26.83
37.15- 37.45	2	42	.70	14.63	104.75-105.75	15	56	5.23	19.51
36.85- 37.15	4	40	1.39	13.94	103.75-104.75	12	41	4.18	14.29
36.55- 36.85	10	36	3.48	12.54	102.75-103.75	7	29	2.44	10.10
36.25- 36.55	11	26	3.83	9.06	101.75-102.75	4	22	1.39	7.67
35.95- 36.25	2	15	.70	5.23	100.75-101.75	4	18	1.39	6.27
35.65- 35.95	6	13	2.09	4.53	99.75-100.75	7	14	2.44	4.88
35.35- 35.65	2	7	.70	2.44	98.75- 99.75	5	7	1.74	2.44
35.05- 35.35	1	5	.35	1.74	97.75- 98.75	0	2	0.00	.70
34.75- 35.05	1	4	.35	1.39	96.75- 97.75	1	2	.35	.70
34.45- 34.75	1	3	.35	1.05	95.75- 96.75	0	1	0.00	.35
34.15- 34.45	1	2	.35	.70	94.75- 95.75	1	1	.35	.35
33.85- 34.15	0	1	0.00	.35					
33.55- 33.85	1	1	.35	.35					

FREQUENCY TABLES FOR CORE-SUBSERIES 1 MEASUREMENTS

27C CHEST CIRC					29C WAIST CIRCUMFERNCE				
RANGES	FRQ	CUMF	FRQ%	CUMF%	RANGES	FRQ	CUMF	FRQ%	CUMF%
110.75-111.75	3	287	1.05	100.00	107.75-108.75	1	287	.35	100.00
109.75-110.75	1	284	.35	98.95	106.75-107.75	0	280	0.00	99.05
108.75-109.75	2	283	.70	98.61	105.75-106.75	0	280	0.00	99.65
107.75-108.75	1	281	.35	97.91	104.75-105.75	1	286	.35	99.65
106.75-107.75	3	280	1.05	97.56	103.75-104.75	2	265	.70	99.30
105.75-106.75	4	277	1.39	96.52	102.75-103.75	0	283	0.00	98.61
104.75-105.75	2	273	.70	95.12	101.75-102.75	1	283	.35	98.61
103.75-104.75	4	271	1.39	94.43	100.75-101.75	0	282	0.00	98.26
102.75-103.75	5	267	1.74	93.03	99.75-100.75	1	282	.35	98.26
101.75-102.75	9	262	3.14	91.29	98.75-99.75	1	281	.35	97.91
100.75-101.75	4	253	1.39	88.15	97.75-98.75	0	280	0.00	97.56
99.75-100.75	9	249	3.14	86.76	96.75-97.75	1	280	.35	97.56
98.75- 99.75	9	246	3.14	83.62	95.75- 96.75	0	278	1.39	96.86
97.75- 98.75	9	231	3.14	80.49	93.75- 94.75	5	274	1.74	95.47
96.75- 97.75	10	222	3.48	77.35	92.75- 93.75	4	269	1.39	93.73
95.75- 96.75	12	212	4.18	73.87	91.75- 92.75	6	265	2.09	92.53
94.75- 95.75	15	206	5.23	69.69	90.75- 91.75	2	259	.70	90.24
93.75- 94.75	14	185	4.68	64.46	89.75- 90.75	2	257	.70	89.55
92.75- 93.75	12	171	4.18	59.58	88.75- 89.75	4	255	1.39	88.85
91.75- 92.75	13	159	4.53	55.40	87.75- 88.75	3	251	1.05	87.46
90.75- 91.75	24	146	8.36	50.87	86.75- 87.75	3	248	1.05	86.41
89.75- 90.75	15	122	5.23	42.51	85.75- 86.75	15	245	5.23	85.37
88.75- 89.75	19	117	6.62	37.28	84.75- 85.75	4	236	1.39	83.14
87.75- 88.75	22	88	7.67	30.66	83.75- 84.75	4	226	1.39	78.75
86.75- 87.75	12	66	4.18	23.00	82.75- 83.75	9	222	3.14	77.35
85.75- 86.75	15	54	5.23	18.82	81.75- 82.75	6	213	2.09	74.22
84.75- 85.75	18	39	6.27	13.59	80.75- 81.75	7	207	2.44	72.13
83.75- 84.75	10	21	3.48	7.32	79.75- 80.75	9	206	3.14	69.69
82.75- 83.75	4	11	1.39	3.83	78.75- 79.75	15	191	5.23	66.55
81.75- 82.75	1	7	.35	2.44	77.75- 78.75	13	176	4.53	61.32
80.75- 81.75	3	6	1.05	2.09	76.75- 77.75	8	163	2.79	58.79
79.75- 80.75	1	3	.35	1.05	75.75- 76.75	29	155	16.10	54.01
78.75- 79.75	1	2	.35	.70	74.75- 75.75	22	126	7.67	43.90
77.75- 78.75	1	1	.35	.35	73.75- 74.75	25	104	8.71	36.24
					72.75- 73.75	18	79	6.27	27.53
					71.75- 72.75	11	61	3.83	21.25
					70.75- 71.75	10	53	5.97	17.42
					69.75- 70.75	11	34	3.83	11.85
					68.75- 69.75	5	23	1.74	8.01
					67.75- 68.75	8	18	2.79	6.27
					66.75- 67.75	5	13	1.74	3.48
					65.75- 66.75	3	5	1.05	1.74
					64.75- 65.75	1	2	.35	.70
					63.75- 64.75	0	1	0.00	.35
					62.75- 63.75	1	1	.35	.35

FREQUENCY TABLES FOR CORE-SUBSERIES 1 MEASUREMENTS

19T WAIST C, OMPHALION				
RANGES	FRQ	CUMF	FRQ%	CUMF%
107.75-108.75	1	287	.35	100.00
106.75-107.75	0	286	0.00	99.65
105.75-106.75	1	286	.35	99.65
104.75-105.75	1	285	.35	99.30
103.75-104.75	1	284	.35	98.95
102.75-103.75	1	283	.35	98.61
101.75-102.75	1	282	.35	98.26
100.75-101.75	0	281	0.00	97.91
99.75-100.75	1	281	.35	97.91
98.75- 99.75	3	280	1.05	97.56
97.75- 98.75	1	277	.35	96.52
96.75- 97.75	0	276	0.00	96.17
95.75- 96.75	4	276	1.39	96.17
94.75- 95.75	4	272	1.39	94.77
93.75- 94.75	0	268	0.00	93.38
92.75- 93.75	3	268	1.05	93.38
91.75- 92.75	6	265	2.09	92.33
90.75- 91.75	3	259	1.05	90.24
89.75- 90.75	3	256	1.05	89.20
88.75- 89.75	1	253	.35	88.15
87.75- 88.75	5	252	1.74	87.80
86.75- 87.75	4	247	1.39	86.06
85.75- 86.75	12	243	4.18	84.67
84.75- 85.75	5	231	1.74	80.49
83.75- 84.75	5	226	1.74	78.75
82.75- 83.75	9	221	3.14	77.00
81.75- 82.75	4	212	1.39	73.87
80.75- 81.75	9	208	3.14	72.47
79.75- 80.75	7	199	2.44	69.34
78.75- 79.75	19	192	6.62	66.90
77.75- 78.75	11	173	3.83	60.28
76.75- 77.75	10	162	3.48	56.45
75.75- 76.75	29	152	10.10	52.96
74.75- 75.75	23	123	8.01	42.86
73.75- 74.75	21	104	7.32	34.84
72.75- 73.75	18	79	6.27	27.53
71.75- 72.75	17	61	5.92	21.25
70.75- 71.75	12	44	4.18	15.33
69.75- 70.75	9	32	3.14	11.15
68.75- 69.75	6	23	2.09	8.01
67.75- 68.75	7	17	2.44	5.92
66.75- 67.75	5	10	1.74	3.48
65.75- 66.75	3	5	1.05	1.74
64.75- 65.75	0	2	0.00	.70
63.75- 64.75	1	2	.35	.70
62.75- 63.75	1	1	.35	.35

30C HIP CIRCUMFERENCE				
RANGES	FRQ	CUMF	FRQ%	CUMF%
113.75-114.75	1	287	.35	100.00
112.75-113.75	2	286	.70	99.65
111.75-112.75	0	284	0.00	98.95
110.75-111.75	1	284	.35	98.95
109.75-110.75	1	283	.35	98.61
108.75-109.75	3	282	1.05	98.26
107.75-108.75	4	279	1.39	97.21
106.75-107.75	7	275	2.44	95.82
105.75-106.75	1	266	.35	93.38
104.75-105.75	6	267	2.09	93.03
103.75-104.75	5	261	1.74	90.94
102.75-103.75	3	256	1.05	89.20
101.75-102.75	4	253	1.39	88.15
100.75-101.75	12	249	4.18	86.76
99.75-100.75	11	237	3.83	82.58
98.75- 99.75	14	226	4.88	78.75
97.75- 98.75	13	212	4.53	73.87
96.75- 97.75	16	199	5.57	69.34
95.75- 96.75	9	183	3.14	63.76
94.75- 95.75	17	174	5.92	60.63
93.75- 94.75	16	157	5.57	54.70
92.75- 93.75	21	141	7.32	49.13
91.75- 92.75	20	120	6.97	41.81
90.75- 91.75	25	100	8.71	34.84
89.75- 90.75	21	75	7.32	26.13
88.75- 89.75	18	54	6.27	18.82
87.75- 88.75	18	36	6.27	12.54
86.75- 87.75	9	18	3.14	6.27
85.75- 86.75	6	9	2.09	3.14
84.75- 85.75	2	3	.70	1.05
83.75- 84.75	1	1	.35	.35

FREQUENCY TABLES FOR CORE-SUBSERIES 1 MEASUREMENTS

23T BICEPS CIR, RELAXED

RANGES	FRQ	CUMF	FRQ%	CUMF%
37.75- 38.25	1	287	.35	100.00
37.25- 37.75	0	286	0.00	99.65
36.75- 37.25	0	286	0.00	99.65
36.25- 36.75	6	286	0.00	99.65
35.75- 36.25	2	286	.70	99.65
35.25- 35.75	2	284	.70	98.95
34.75- 35.25	2	282	.70	98.26
34.25- 34.75	3	280	1.05	97.56
33.75- 34.25	1	277	.35	96.52
33.25- 33.75	12	276	4.18	96.17
32.75- 33.25	10	264	3.48	91.99
32.25- 32.75	12	254	4.16	88.50
31.75- 32.25	10	242	3.48	84.32
31.25- 31.75	9	232	3.14	80.84
30.75- 31.25	19	223	6.62	77.70
30.25- 30.75	14	204	4.88	71.08
29.75- 30.25	20	190	6.97	66.21
29.25- 29.75	19	170	6.62	59.23
28.75- 29.25	19	151	6.62	52.61
28.25- 28.75	22	132	7.67	45.99
27.75- 28.25	13	110	4.53	38.33
27.25- 27.75	16	97	5.57	33.80
26.75- 27.25	23	81	8.01	28.22
26.25- 26.75	14	58	4.88	20.21
25.75- 26.25	14	44	4.88	15.33
25.25- 25.75	9	34	3.14	10.45
24.75- 25.25	11	21	3.83	7.32
24.25- 24.75	2	10	.70	3.48
23.75- 24.25	4	8	1.39	2.79
23.25- 23.75	2	4	.70	1.39
22.75- 23.25	1	2	.35	.70
22.25- 22.75	0	1	0.00	.35
21.75- 22.25	1	1	.35	.35

33C BICEPS CIRC, FLEXED

RANGES	FRQ	CUMF	FRQ%	CUMF%
38.75- 39.25	1	287	.35	100.00
38.25- 38.75	0	286	0.00	99.65
37.75- 38.25	2	286	.70	99.65
37.25- 37.75	1	284	.35	98.95
36.75- 37.25	2	283	.70	98.61
36.25- 36.75	3	261	1.05	97.91
35.75- 36.25	8	278	2.79	96.86
35.25- 35.75	12	270	4.18	94.08
34.75- 35.25	7	250	2.44	89.90
34.25- 34.75	10	251	3.48	87.46
33.75- 34.25	13	241	4.53	83.97
33.25- 33.75	13	228	4.53	79.44
32.75- 33.25	18	215	6.27	74.91
32.25- 32.75	15	197	5.23	68.64
31.75- 32.25	14	182	4.88	63.41
31.25- 31.75	26	168	9.06	58.54
30.75- 31.25	17	142	5.92	49.48
30.25- 30.75	19	125	6.62	43.55
31.75- 32.25	18	106	6.27	36.93
31.25- 31.75	27	88	9.41	30.66
30.75- 31.25	13	61	4.53	21.25
30.25- 30.75	12	48	4.18	16.72
29.75- 30.25	12	36	4.18	12.54
29.25- 29.75	5	24	1.74	8.36
28.75- 29.25	9	19	3.14	6.62
28.25- 28.75	3	10	1.05	3.48
27.75- 28.25	7	7	1.05	2.44
27.25- 27.75	5	4	.70	1.39
26.75- 27.25	9	1	.35	.35
26.25- 26.75	0	1	0.00	.35
25.75- 26.25	1	1	.35	.35
25.25- 25.75	2	1	.35	.35
24.75- 25.25	1	2	.35	.70
24.25- 24.75	0	1	0.00	.35
23.75- 24.25	1	1	.35	.35

FREQUENCY TABLES FOR CORE-SUBSERIES 1 MEASUREMENTS

39C CALF CIRCUMFERENCE					40C ANKLE CIRCUMFERENCE				
RANGES	FRQ	CUMF	FRQ%	CUMF%	RANGES	FRQ	CUMF	FRQ%	CUMF%
43.75- 44.25	1	287	.35	100.00	25.95- 26.15	1	287	.35	100.00
43.25- 43.75	1	286	.35	99.65	25.75- 25.95	1	286	.35	99.65
42.75- 43.25	1	285	.35	99.30	25.55- 25.75	0	285	0.00	99.30
42.25- 42.75	1	284	.35	98.95	25.35- 25.55	1	285	.35	99.30
41.75- 42.25	4	283	1.39	98.61	25.15- 25.35	0	284	0.00	98.95
41.25- 41.75	3	279	1.05	97.21	24.95- 25.15	1	284	.35	98.95
40.75- 41.25	4	276	1.39	96.17	24.75- 24.95	0	283	0.00	98.61
40.25- 40.75	6	272	2.09	94.77	24.55- 24.75	1	283	.35	98.26
39.75- 40.25	8	266	2.79	92.68	24.15- 24.35	2	280	.70	97.56
39.25- 39.75	6	258	2.09	89.90	23.95- 24.15	9	278	3.14	96.86
38.75- 39.25	9	252	3.14	87.80	23.75- 23.95	6	269	2.09	93.73
38.25- 38.75	12	243	4.18	84.67	23.55- 23.75	1	263	.35	91.64
37.75- 38.25	7	231	2.44	80.49	23.35- 23.55	10	262	3.48	91.29
37.25- 37.75	18	224	6.27	78.05	23.15- 23.35	10	252	3.48	87.80
36.75- 37.25	21	206	7.32	71.78	22.95- 23.15	15	242	5.23	84.32
36.25- 36.75	20	185	6.97	64.46	22.75- 22.95	12	227	4.18	79.39
35.75- 36.25	13	165	4.53	57.49	22.55- 22.75	12	215	4.18	74.91
35.25- 35.75	19	152	6.62	52.96	22.35- 22.55	16	203	5.57	70.73
34.75- 35.25	25	133	8.71	46.34	22.15- 22.35	11	187	3.83	65.16
34.25- 34.75	22	108	7.67	37.63	21.95- 22.15	17	176	5.92	61.32
33.75- 34.25	25	86	8.71	29.97	21.75- 21.95	5	159	1.74	55.40
33.25- 33.75	13	61	4.53	21.25	21.55- 21.75	13	154	4.53	53.66
32.75- 33.25	9	48	3.14	16.72	21.35- 21.55	24	141	8.36	49.13
32.25- 32.75	12	39	4.18	13.59	21.15- 21.35	10	117	3.48	40.77
31.75- 32.25	11	27	3.83	9.41	20.95- 21.15	19	107	6.62	37.28
31.25- 31.75	6	16	2.09	5.57	20.75- 20.95	15	88	5.23	30.66
30.75- 31.25	2	10	.70	3.48	20.55- 20.75	0	73	2.09	25.44
30.25- 30.75	3	8	1.05	2.79	20.35- 20.55	15	67	5.23	23.34
29.75- 30.25	1	5	.35	1.74	20.15- 20.35	10	52	3.48	18.12
29.25- 29.75	3	4	1.05	1.39	19.95- 20.15	10	42	3.48	14.63
28.75- 29.25	0	1	0.00	.35	19.75- 19.95	13	32	4.53	11.15
28.25- 28.75	1	1	.35	.35	19.55- 19.75	1	19	.35	6.62
					19.35- 19.55	7	18	2.44	6.27
					19.15- 19.35	1	11	.35	3.83
					18.95- 19.15	3	10	1.05	3.48
					18.75- 18.95	3	7	1.05	2.44
					18.55- 18.75	2	4	.70	1.39
					18.35- 18.55	1	2	.35	.70
					18.15- 18.35	0	1	0.00	.35
					17.95- 18.15	1	1	.35	.35

FREQUENCY TABLES FOR CORE-SUBSERIES 1 MEASUREMENTS

42C INTERSCYE, BACK				43C INTERSCYE, FRONT						
RANGES	FRQ	CUMF	FRQ%	RANGES	FRQ	CUMF	FRQ%			
47.75- 48.25	1	287	.35	100.00	39.55-	39.75	5	269	1.74	93.73
47.25- 47.75	5	286	1.74	99.65	39.35-	39.55	2	264	.70	91.99
46.75- 47.25	3	281	1.05	97.91	39.15-	39.35	4	262	1.39	91.29
46.25- 46.75	3	278	1.05	96.86	38.95-	39.15	7	258	2.44	89.90
45.75- 46.25	1	275	.35	95.82	38.75-	38.95	4	251	1.39	87.46
45.25- 45.75	5	274	1.74	95.47	38.55-	38.75	7	247	2.44	86.06
44.75- 45.25	8	269	2.79	93.73	38.35-	38.55	11	240	3.83	83.62
44.25- 44.75	11	261	3.83	90.94	38.15-	38.35	8	229	2.79	79.79
43.75- 44.25	13	250	4.53	87.11	37.95-	38.15	6	221	2.09	77.00
43.25- 43.75	14	237	4.88	82.58	37.75-	37.95	12	215	4.18	74.91
42.75- 43.25	17	223	5.92	77.70	37.55-	37.75	11	203	3.83	70.73
42.25- 42.75	13	206	4.53	71.78	37.35-	37.55	17	192	5.92	66.90
41.75- 42.25	15	193	5.23	67.25	37.15-	37.35	2	175	.70	60.98
41.25- 41.75	27	178	9.41	62.02	36.95-	37.15	11	173	3.83	60.28
40.75- 41.25	15	151	5.23	52.61	36.75-	36.95	7	162	2.44	56.45
40.25- 40.75	20	136	6.97	47.39	36.55-	36.75	10	155	3.48	54.01
39.75- 40.25	21	110	7.32	40.42	36.35-	36.55	15	145	5.23	50.52
39.25- 39.75	20	95	6.97	33.10	36.15-	36.35	15	130	5.23	45.30
38.75- 39.25	16	75	5.57	26.13	35.95-	36.15	10	115	3.48	40.07
38.25- 38.75	12	59	4.18	20.56	35.75-	35.95	9	105	3.14	36.59
37.75- 38.25	12	47	4.16	16.38	35.55-	35.75	12	96	4.18	33.45
37.25- 37.75	9	35	3.14	12.20	35.35-	35.55	10	84	3.48	29.27
36.75- 37.25	6	26	2.09	9.06	35.15-	35.35	12	74	4.18	25.78
36.25- 36.75	8	20	2.79	6.97	34.95-	35.15	6	62	2.09	21.60
35.75- 36.25	3	12	1.05	4.18	34.75-	34.95	8	56	2.79	19.51
35.25- 35.75	5	9	1.74	3.14	34.55-	34.75	8	48	2.79	16.72
34.75- 35.25	0	4	0.06	1.39	34.35-	34.55	7	40	2.44	13.94
34.25- 34.75	2	4	.70	1.39	34.15-	34.35	8	33	2.79	11.50
33.75- 34.25	0	2	0.00	.70	33.95-	34.15	3	25	1.05	8.71
33.25- 33.75	1	2	.35	.70	33.75-	33.95	4	22	1.39	7.67
32.75- 33.25	1	1	.35	.35	33.55-	33.75	1	18	.35	6.27
					33.35-	33.55	2	17	.70	5.92
					33.15-	33.35	3	15	1.05	5.23
					32.95-	33.15	4	12	1.39	4.18
					32.75-	32.95	3	8	1.05	2.79
					32.55-	32.75	1	5	.35	1.74
					32.35-	32.55	2	4	.70	1.39
					32.15-	32.35	0	2	0.00	.70
					31.95-	32.15	1	2	.35	.70
					31.75-	31.95	0	1	0.00	.35
					31.55-	31.75	1	1	.35	.35

FREQUENCY TABLES FOR CORE-SUBSERIES 1 MEASUREMENTS

44C BACK CURV°URE-CHST

RANGES	FRQ	CUMF	FRQ%	CUMF%
54.25- 54.75	2	287	.70	100.00
53.75- 54.25	2	285	.70	99.30
53.25- 53.75	1	283	.35	98.61
52.75- 53.25	1	282	.35	98.26
52.25- 52.75	3	281	1.05	97.91
51.75- 52.25	4	278	1.39	96.86
51.25- 51.75	4	274	1.39	95.47
50.75- 51.25	6	270	2.09	94.08
50.25- 50.75	4	264	1.39	91.99
49.75- 50.25	3	260	1.05	90.59
49.25- 49.75	8	257	2.79	89.55
48.75- 49.25	11	249	3.83	86.76
48.25- 48.75	6	238	2.09	82.93
47.75- 48.25	11	232	3.83	80.84
47.25- 47.75	8	221	2.79	77.00
46.75- 47.25	11	213	3.83	74.22
46.25- 46.75	9	202	3.14	70.38
45.75- 46.25	14	193	4.88	67.25
45.25- 45.75	17	179	5.92	62.37
44.75- 45.25	13	162	4.53	56.45
44.25- 44.75	17	149	5.92	51.92
43.75- 44.25	22	132	7.67	45.99
43.25- 43.75	8	110	2.79	38.33
42.75- 43.25	24	102	8.36	35.54
42.25- 42.75	22	78	7.67	27.18
41.75- 42.25	20	56	6.97	19.51
41.25- 41.75	8	36	2.79	12.54
40.75- 41.25	11	28	3.83	9.76
40.25- 40.75	4	17	1.39	5.92
39.75- 40.25	8	13	2.79	4.53
39.25- 39.75	3	5	1.05	1.74
38.75- 39.25	0	2	0.00	.70
38.25- 38.75	1	2	.35	.70
37.75- 38.25	1	1	.35	.35

45C BACK CURV°KE-WAIST

RANGES	FRQ	CUMF	FRQ%	CUMF%
56.75- 57.75	1	287	.35	100.00
55.75- 56.75	1	286	.35	99.65
54.75- 55.75	0	285	.00	99.30
53.75- 54.75	1	285	.35	99.30
52.75- 53.75	1	284	.35	98.95
51.75- 52.75	0	283	0.00	98.61
50.75- 51.75	0	283	0.00	98.61
49.75- 50.75	0	283	0.00	98.61
48.75- 49.75	4	283	1.39	98.61
47.75- 48.75	3	279	1.05	97.21
46.75- 47.75	6	276	2.09	96.17
45.75- 46.75	6	276	2.09	94.08
44.75- 45.75	6	264	2.09	91.99
43.75- 44.75	10	258	3.48	89.90
42.75- 43.75	13	248	4.53	86.41
41.75- 42.75	11	235	3.83	81.88
40.75- 41.75	16	224	5.57	78.05
39.75- 40.75	18	208	6.27	72.47
38.75- 39.75	20	190	6.97	66.20
37.75- 38.75	33	178	10.45	59.23
36.75- 37.75	43	140	14.98	48.78
35.75- 36.75	42	97	14.63	33.60
34.75- 35.75	21	55	7.32	19.16
33.75- 34.75	20	34	5.97	11.85
32.75- 33.75	5	14	1.74	4.88
31.75- 32.75	7	9	2.44	3.14
30.75- 31.75	2	2	.70	.70

FREQUENCY TABLES FOR CORE-SUBSERIES 1 MEASUREMENTS

46C BACK CURVATURE-HIP					
RANGES	FRQ	CUMF	FRQ%	CUMF%	
58.25- 58.75	1	287	.35	100.00	
57.75- 58.25	0	286	0.00	99.65	
57.25- 57.75	0	286	0.00	99.65	
56.75- 57.25	0	286	0.00	99.65	
56.25- 56.75	0	286	0.00	99.65	
55.75- 56.25	0	286	0.00	99.65	
55.25- 55.75	1	286	.35	99.65	
54.75- 55.25	2	285	.70	99.30	
54.25- 54.75	0	283	0.00	98.61	
53.75- 54.25	2	283	.70	98.61	
53.25- 53.75	5	281	1.74	97.91	
52.75- 53.25	2	276	.70	96.17	
52.25- 52.75	2	274	.70	95.47	
51.75- 52.25	4	272	1.39	94.77	
51.25- 51.75	6	268	2.09	93.38	
50.75- 51.25	6	262	2.09	91.29	
50.25- 50.75	7	256	2.44	89.20	
49.75- 50.25	8	249	2.79	86.76	
49.25- 49.75	11	241	3.83	83.97	
48.75- 49.25	13	230	4.53	80.14	
48.25- 48.75	12	217	4.18	75.61	
47.75- 48.25	10	205	3.48	71.43	
47.25- 47.75	10	195	3.46	67.94	
46.75- 47.25	17	185	5.92	64.46	
46.25- 46.75	16	168	5.57	58.54	
45.75- 46.25	14	152	4.88	52.96	
45.25- 45.75	16	138	5.57	48.08	
44.75- 45.25	24	122	8.36	42.51	
44.25- 44.75	28	98	9.76	34.15	
43.75- 44.25	20	70	6.97	24.39	
43.25- 43.75	18	50	6.27	17.42	
42.75- 43.25	11	32	3.83	11.15	
42.25- 42.75	10	21	3.48	7.32	
41.75- 42.25	4	11	1.39	3.83	
41.25- 41.75	5	7	1.74	2.44	
40.75- 41.25	1	2	.35	.70	
40.25- 40.75	0	1	0.00	.35	
39.75- 40.25	0	1	0.00	.35	
39.25- 39.75	1	1	.35	.35	

47C WAIST BACK LENGTH					
RANGES	FRQ	CUMF	FRQ%	CUMF%	
52.75- 53.25	2	287	.70	100.00	
52.25- 52.75	0	285	0.00	99.30	
51.75- 52.25	4	285	1.39	99.30	
51.25- 51.75	2	281	.70	97.91	
50.75- 51.25	4	279	1.39	97.21	
50.25- 50.75	5	275	1.74	95.82	
49.75- 50.25	7	274	2.44	94.08	
49.25- 49.75	3	263	1.05	91.64	
48.75- 49.25	7	266	2.44	90.59	
48.25- 48.75	7	253	2.44	88.15	
47.75- 48.25	13	246	4.53	85.71	
47.25- 47.75	15	233	5.23	81.18	
46.75- 47.25	11	218	3.83	75.96	
46.25- 46.75	17	207	5.92	72.13	
45.75- 46.25	11	190	3.83	66.20	
45.25- 45.75	22	179	7.67	62.37	
44.75- 45.25	26	157	6.97	54.70	
44.25- 44.75	14	137	4.88	47.74	
43.75- 44.25	14	123	4.88	42.86	
43.25- 43.75	19	109	6.62	37.98	
42.75- 43.25	19	90	6.62	31.36	
42.25- 42.75	16	71	5.57	24.74	
41.75- 42.25	11	55	3.83	19.16	
41.25- 41.75	4	44	1.39	15.33	
40.75- 41.25	9	40	3.14	13.94	
40.25- 40.75	6	31	2.09	10.83	
39.75- 40.25	6	25	2.09	8.71	
39.25- 39.75	7	19	2.44	6.62	
38.75- 39.25	7	12	1.39	4.18	
38.25- 38.75	3	8	1.05	2.79	
37.75- 38.25	4	5	1.39	1.74	
37.25- 37.75	1	1	.35	.35	

FREQUENCY TABLES FOR CORE-SUBSERIES 1 MEASUREMENTS

48C WAIST FRONT LENGTH				
RANGES	FRQ	CUMF	FRQ%	CUMF%
48.75- 49.25	1	287	.35	100.00
48.25- 48.75	0	286	0.00	99.65
47.75- 48.25	3	286	1.05	99.65
47.25- 47.75	2	283	.70	98.61
46.75- 47.25	6	281	2.09	97.91
46.25- 46.75	3	275	1.05	95.82
45.75- 46.25	4	272	1.39	94.77
45.25- 45.75	9	268	3.14	93.38
44.75- 45.25	4	259	1.39	90.24
44.25- 44.75	10	255	3.48	88.85
43.75- 44.25	13	245	4.53	85.37
43.25- 43.75	11	232	3.83	80.84
42.75- 43.25	15	221	5.23	77.60
42.25- 42.75	12	216	4.18	71.78
41.75- 42.25	20	194	6.97	67.60
41.25- 41.75	16	174	5.57	60.03
40.75- 41.25	25	158	8.71	55.05
40.25- 40.75	19	133	6.62	46.34
39.75- 40.25	19	114	6.62	39.72
39.25- 39.75	15	95	5.23	33.10
38.75- 39.25	12	80	4.18	27.87
38.25- 38.75	22	68	7.67	23.69
37.75- 38.25	9	46	3.14	16.03
37.25- 37.75	10	37	3.48	12.89
36.75- 37.25	4	27	1.39	9.41
36.25- 36.75	5	23	1.74	8.61
35.75- 36.25	5	18	1.74	6.27
35.25- 35.75	2	13	.76	4.53
34.75- 35.25	5	11	1.74	3.83
34.25- 34.75	4	6	1.39	2.09
33.75- 34.25	0	2	0.00	.70
33.25- 33.75	0	2	0.00	.70
32.75- 33.25	0	2	0.00	.70
32.25- 32.75	2	2	.76	.70

51C SLEEVE INSEAM LGTH				
RANGES	FRQ	CUMF	FRQ%	CUMF%
50.25- 50.75	1	287	.35	100.00
50.75- 51.25	0	286	0.00	99.65
51.25- 51.75	0	286	0.00	99.65
51.75- 52.25	2	286	.70	99.65
52.25- 52.75	2	284	.70	98.95
52.75- 53.25	5	286	1.74	97.91
53.25- 53.75	4	275	1.39	95.82
53.75- 54.25	12	267	4.18	93.03
54.25- 54.75	4	255	1.39	88.85
54.75- 55.25	10	251	5.57	87.46
55.25- 55.75	16	235	5.57	81.88
55.75- 56.25	10	219	3.48	76.31
56.25- 56.75	19	209	6.62	72.82
56.75- 57.25	22	190	7.67	66.20
57.25- 57.75	25	168	8.71	58.04
57.75- 58.25	18	143	6.27	49.83
58.25- 58.75	22	125	7.67	43.55
58.75- 59.25	19	103	6.62	35.89
59.25- 59.75	18	84	6.27	29.27
59.75- 60.25	16	66	5.57	23.00
60.25- 60.75	15	50	5.23	17.42
60.75- 61.25	12	35	4.18	12.20
61.25- 61.75	6	23	2.09	8.01
61.75- 62.25	4	17	1.39	5.92
62.25- 62.75	3	13	1.05	4.53
62.75- 63.25	4	10	1.39	3.48
62.25- 62.75	3	6	1.05	2.09
62.75- 63.25	0	3	0.00	1.05
63.25- 63.75	1	3	.35	1.05
63.75- 64.25	6	2	0.00	.70
64.25- 64.75	0	2	0.00	.70
64.75- 65.25	1	1	.35	.70
65.25- 65.75	0	1	0.03	.35
65.75- 66.25	1	1	.35	.35

FREQUENCY TABLES FOR CORE-SUBSERIES 1 MEASUREMENTS

52C SLEEVE OUTSEAM LTH					54C HEAD CIRCUMFERENCE				
RANGES	FRQ	CUMF	FRQ%	CUMFX	RANGES	FRQ	CUMF	FRQ%	CUMFX
66.75- 67.25	1	287	.35	103.00	60.15- 60.35	1	287	.35	100.00
66.25- 66.75	1	286	.35	99.65	59.95- 60.15	1	286	.35	99.65
65.75- 66.25	5	285	1.74	99.30	59.75- 59.95	0	285	0.00	99.30
65.25- 65.75	2	280	.70	97.56	59.55- 59.75	2	285	.70	99.30
64.75- 65.25	3	278	1.05	96.86	59.15- 59.35	1	282	.35	98.61
64.25- 64.75	3	275	1.05	95.82	58.95- 59.15	3	281	1.05	97.91
63.75- 64.25	4	272	1.39	94.77	58.75- 58.95	5	278	1.74	96.86
63.25- 63.75	5	268	1.74	93.38	58.55- 58.75	4	273	1.39	95.12
62.75- 63.25	11	263	3.83	91.64	58.35- 58.55	5	269	1.74	93.73
62.25- 62.75	8	252	2.79	87.80	58.15- 58.35	5	264	1.74	91.99
61.75- 62.25	8	244	2.79	85.02	57.95- 58.15	5	259	1.74	90.24
61.25- 61.75	11	236	3.83	82.23	57.75- 57.95	5	254	1.74	88.50
60.75- 61.25	20	225	6.97	78.40	57.55- 57.75	7	249	2.44	86.76
60.25- 60.75	13	205	4.53	71.43	57.35- 57.55	11	242	3.83	84.32
59.75- 60.25	12	192	4.18	66.90	57.15- 57.35	11	231	3.83	80.49
59.25- 59.75	15	180	5.23	62.72	56.95- 57.15	14	220	4.88	76.66
58.75- 59.25	13	165	4.53	57.49	56.75- 56.95	11	206	3.83	71.78
58.25- 58.75	15	152	5.23	52.96	56.55- 56.75	10	195	3.48	67.94
57.75- 58.25	20	137	6.97	47.74	56.35- 56.55	19	185	6.62	64.46
57.25- 57.75	19	117	6.62	40.77	56.15- 56.35	14	160	4.68	57.84
56.75- 57.25	21	98	7.32	34.15	55.95- 56.15	16	152	5.57	52.96
56.25- 56.75	15	77	5.23	26.83	55.75- 55.95	9	136	3.14	47.39
55.75- 56.25	19	62	6.62	21.60	55.55- 55.75	17	127	5.92	44.25
55.25- 55.75	7	43	2.44	14.98	55.35- 55.55	20	118	6.97	38.33
54.75- 55.25	14	36	4.88	12.54	55.15- 55.35	12	90	4.18	31.36
54.25- 54.75	4	22	1.39	7.67	54.95- 55.15	10	78	3.48	27.18
53.75- 54.25	4	18	1.39	6.27	54.75- 54.95	7	68	2.44	23.69
53.25- 53.75	3	14	1.05	4.88	54.55- 54.75	11	61	3.83	21.25
52.75- 53.25	0	11	0.00	3.83	54.35- 54.55	8	50	2.79	17.42
52.25- 52.75	6	11	2.09	3.83	54.15- 54.35	7	42	2.44	14.03
51.75- 52.25	1	5	.35	1.74	53.95- 54.15	9	35	3.14	12.20
51.25- 51.75	1	4	.35	1.39	53.75- 53.95	1	26	.35	9.06
50.75- 51.25	1	3	.35	1.05	53.55- 53.75	0	25	0.00	8.71
50.25- 50.75	1	2	.35	.70	53.35- 53.55	5	25	1.74	8.71
49.75- 50.25	0	1	0.00	.35	53.15- 53.35	0	20	2.09	6.97
49.25- 49.75	0	1	0.00	.35	52.95- 53.15	3	14	1.05	4.88
48.75- 49.25	0	1	0.00	.35	52.75- 52.95	0	11	0.00	3.83
48.25- 48.75	0	1	0.00	.35	52.55- 52.75	2	11	.70	3.83
47.75- 48.25	0	1	0.00	.35	52.35- 52.55	3	9	1.05	3.14
47.25- 47.75	1	1	.35	.35	52.15- 52.35	2	6	.70	2.09
					51.95- 52.15	1	4	.35	1.39
					51.75- 51.95	2	3	.70	1.05
					51.55- 51.75	1	1	.35	.35

FREQUENCY TABLES FOR CORE-SUBSERIES 1 MEASUREMENTS

56C HEAD LENGTH					
RANGES	FRQ	CUMF	FRQ%	CUMF%	
21.35- 21.45	1	287	.35	100.00	
21.25- 21.35	2	286	.70	99.65	
21.15- 21.25	0	284	0.00	98.95	
21.05- 21.15	0	284	0.00	98.95	
20.95- 21.05	2	284	.70	98.95	
20.85- 20.95	1	282	.35	98.26	
20.75- 20.85	4	281	1.39	97.91	
20.65- 20.75	3	277	1.05	96.52	
20.55- 20.65	4	274	1.39	95.47	
20.45- 20.55	11	270	3.83	94.08	
20.35- 20.45	7	259	2.44	90.24	
20.25- 20.35	4	252	1.39	87.80	
20.15- 20.25	9	248	3.14	86.41	
20.05- 20.15	9	239	3.14	83.28	
19.95- 20.05	8	231	2.79	80.14	
19.85- 19.95	11	222	3.83	77.35	
19.75- 19.85	13	211	4.53	73.52	
19.65- 19.75	13	198	4.23	68.99	
19.55- 19.65	16	185	5.57	64.46	
19.45- 19.55	30	169	10.45	58.89	
19.35- 19.45	46	139	5.57	48.43	
19.25- 19.35	18	123	6.27	42.86	
19.15- 19.25	23	105	8.01	36.59	
19.05- 19.15	14	82	4.88	28.57	
18.95- 19.05	13	68	4.53	23.69	
18.85- 18.95	8	55	2.79	19.16	
18.75- 18.85	9	47	3.14	16.38	
18.65- 18.75	7	38	2.44	13.24	
18.55- 18.65	7	31	2.44	10.80	
18.45- 18.55	4	24	1.39	8.36	
18.35- 18.45	1	20	.35	6.97	
18.25- 18.35	7	19	2.44	5.62	
18.15- 18.25	0	12	0.00	4.18	
18.05- 18.15	4	12	1.39	4.18	
17.95- 18.05	2	8	.70	2.79	
17.85- 17.95	1	6	.35	2.09	
17.75- 17.85	2	5	.70	1.74	
17.65- 17.75	0	3	0.00	1.05	
17.55- 17.65	1	3	.35	1.05	
17.45- 17.55	1	2	.35	.70	
17.35- 17.45	0	1	0.00	.35	
17.25- 17.35	0	1	0.00	.35	
17.15- 17.25	0	1	0.00	.35	
17.05- 17.15	0	1	0.00	.35	
16.95- 17.05	0	1	0.00	.35	
16.85- 16.95	0	1	0.00	.35	
16.75- 16.85	1	1	.35	.35	

FREQUENCY TABLES FOR CORE-SUBSERIES 1 MEASUREMENTS

57C PALM LENGTH

RANGES	FRQ	CUMF	FRQ%	CUMF%
12.05- 12.15	2	287	.70	100.00
11.95- 12.05	3	285	1.05	99.30
11.85- 11.95	4	282	1.39	98.26
11.75- 11.85	7	278	2.44	96.86
11.65- 11.75	4	271	1.39	94.43
11.55- 11.65	5	267	1.74	93.03
11.45- 11.55	6	262	2.09	91.29
11.35- 11.45	7	256	2.44	89.26
11.25- 11.35	14	249	4.88	86.76
11.15- 11.25	12	235	4.18	81.88
11.05- 11.15	31	223	10.80	77.70
10.95- 11.05	16	192	5.57	66.90
10.85- 10.95	16	176	5.57	61.32
10.75- 10.85	21	160	7.32	55.75
10.65- 10.75	18	139	6.27	48.43
10.55- 10.65	17	121	5.92	42.16
10.45- 10.55	19	104	6.62	36.24
10.35- 10.45	13	85	4.53	29.62
10.25- 10.35	13	72	4.53	25.09
10.15- 10.25	13	59	4.53	20.56
10.05- 10.15	13	46	4.53	16.03
9.95- 10.05	5	33	1.74	11.50
9.85- 9.95	12	28	4.18	9.76
9.75- 9.85	6	16	2.99	5.57
9.65- 9.75	3	10	1.05	3.48
9.55- 9.65	2	7	.70	2.44
9.45- 9.55	1	5	.35	1.74
9.35- 9.45	1	4	.35	1.39
9.25- 9.35	1	3	.35	1.05
9.15- 9.25	0	2	0.00	.70
9.05- 9.15	1	2	.35	.70
8.95- 9.05	1	1	.35	.35

58C HAND BREADTH

RANGES	FRQ	CUMF	FRQ%	CUMF%
9.95- 10.05	1	287	.35	100.00
9.85- 9.95	1	286	.35	99.65
9.75- 9.85	7	285	2.44	99.30
9.65- 9.75	7	278	2.44	96.86
9.55- 9.65	7	271	2.44	94.43
9.45- 9.55	13	264	4.53	91.99
9.35- 9.45	11	251	3.83	87.46
9.25- 9.35	19	240	6.62	83.62
9.15- 9.25	19	221	6.62	77.00
9.05- 9.15	26	202	9.06	70.38
8.95- 9.05	23	176	8.01	61.32
8.85- 8.95	29	153	10.10	53.31
8.75- 8.85	18	124	6.27	43.21
8.65- 8.75	25	106	8.71	36.93
8.55- 8.65	27	81	9.41	28.22
8.45- 8.55	16	54	5.57	18.82
8.35- 8.45	11	38	3.83	13.24
8.25- 8.35	11	27	3.83	9.41
8.15- 8.25	10	16	3.48	5.57
8.05- 8.15	1	6	.35	2.09
7.95- 8.05	1	5	.35	1.74
7.85- 7.95	2	4	.70	1.39
7.75- 7.85	2	2	.70	.70

FREQUENCY TABLES FOR CORE-SUBSERIES 1 MEASUREMENTS

59C HAND CIRCUMFERENCE

RANGES		FRQ	CUMF	FRQ%	CUMF%
23.95-	24.15	1	287	.35	100.00
23.75-	23.95	1	286	.35	99.65
23.55-	23.75	1	285	.35	99.30
23.35-	23.55	1	284	.35	98.95
23.15-	23.35	2	283	.70	98.61
22.95-	23.15	5	281	1.74	97.91
22.75-	22.95	6	276	2.09	96.17
22.55-	22.75	6	270	2.09	94.08
22.35-	22.55	8	264	2.79	91.99
22.15-	22.35	8	256	2.79	89.20
21.95-	22.15	20	248	6.97	86.41
21.75-	21.95	16	228	5.57	79.44
21.55-	21.75	16	212	5.57	73.87
21.35-	21.55	29	196	10.10	68.29
21.15-	21.35	15	167	5.23	58.19
20.95-	21.15	29	152	10.10	52.96
20.75-	20.95	18	123	6.27	42.86
20.55-	20.75	17	105	5.92	36.59
20.35-	20.55	23	68	8.01	30.66
20.15-	20.35	11	65	3.83	22.65
19.95-	20.15	24	54	8.36	18.82
19.75-	19.95	7	36	2.44	10.45
19.55-	19.75	10	23	3.48	8.01
19.35-	19.55	6	13	2.09	4.53
19.15-	19.35	1	7	.35	2.44
18.95-	19.15	2	6	.70	2.09
18.75-	18.95	1	4	.35	1.39
18.55-	18.75	1	3	.35	1.05
18.35-	18.55	1	2	.35	.70
18.15-	18.35	0	1	0.00	.35
17.95-	18.15	1	1	.35	.35

60C HAND LENGTH

RANGES		FRQ	CUMF	FRQ%	CUMF%
21.55-	21.75	1	287	.35	100.00
21.35-	21.55	0	286	0.00	99.65
21.15-	21.35	1	286	.35	99.30
20.95-	21.15	2	285	.70	98.61
20.75-	20.95	4	283	1.39	98.61
20.55-	20.75	10	279	3.48	97.21
20.35-	20.55	7	209	2.44	93.73
20.15-	20.35	11	262	3.83	91.29
19.95-	20.15	15	251	5.23	87.46
19.75-	19.95	12	236	4.18	82.23
19.55-	19.75	22	224	7.67	78.05
19.35-	19.55	24	202	8.36	70.38
19.15-	19.35	29	178	10.10	62.02
18.95-	19.15	18	149	6.27	51.92
18.75-	18.95	17	131	5.92	45.64
18.55-	18.75	24	114	8.36	39.72
18.35-	18.55	11	90	3.83	31.36
18.15-	18.35	13	79	4.53	27.53
17.95-	18.15	21	66	7.32	23.00
17.75-	17.95	15	45	5.23	15.68
17.55-	17.75	8	30	2.79	10.45
17.35-	17.55	12	22	4.18	7.67
17.15-	17.35	4	16	1.39	3.48
16.95-	17.15	2	6	.70	2.09
16.75-	16.95	0	4	0.00	1.39
16.55-	16.75	1	4	.35	1.39
16.35-	16.55	1	3	.35	1.05
16.15-	16.35	1	2	.35	.70
15.95-	16.15	0	1	0.00	.35
15.75-	15.95	1	1	.35	.35

FREQUENCY TABLES FOR CORE-SUBSERIES 1 MEASUREMENTS

61C INSTEP LENGTH					62C FOOT LENGTH				
RANGES	FRQ	CUMF	FRQ%	CUMF%	RANGES	FRQ	CUMF	FRQ%	CUMF%
22.95- 23.15	1	286	.35	100.00	29.55- 29.75	3	286	1.05	100.00
22.75- 22.95	0	285	0.00	99.65	29.35- 29.55	4	283	1.40	98.95
22.55- 22.75	1	285	.35	99.65	29.15- 29.35	1	279	.35	97.55
22.35- 22.55	1	284	.35	99.30	28.95- 29.15	7	278	2.45	97.20
22.15- 22.35	4	283	1.40	98.95	28.75- 28.95	8	271	2.80	94.76
21.95- 22.15	2	279	.70	97.55	28.55- 28.75	2	263	.70	91.96
21.75- 21.95	3	277	1.05	96.85	28.35- 28.55	11	261	3.85	91.26
21.55- 21.75	5	274	1.75	95.80	28.15- 28.35	8	250	2.80	87.41
21.35- 21.55	8	269	2.86	94.06	27.95- 28.15	14	242	4.90	84.62
21.15- 21.35	10	261	3.50	91.26	27.75- 27.95	11	228	3.85	79.72
20.95- 21.15	11	251	3.85	87.76	27.55- 27.75	7	217	2.45	75.87
20.75- 20.95	8	240	2.86	83.92	27.35- 27.55	18	210	6.29	73.43
20.55- 20.75	5	232	1.75	81.12	27.15- 27.35	19	192	6.64	67.13
20.35- 20.55	21	227	7.34	79.37	26.95- 27.15	23	173	8.04	60.49
20.15- 20.35	20	206	6.99	72.03	26.75- 26.95	11	150	3.85	52.45
19.95- 20.15	19	186	6.64	65.03	26.55- 26.75	10	139	3.50	48.60
19.75- 19.95	23	167	8.04	58.39	26.35- 26.55	19	129	6.64	45.10
19.55- 19.75	14	144	4.90	50.35	26.15- 26.35	14	110	4.90	38.46
19.35- 19.55	23	130	8.04	45.45	25.95- 26.15	18	96	6.29	33.57
19.15- 19.35	17	107	5.94	37.41	25.75- 25.95	16	78	5.59	27.27
18.95- 19.15	19	90	6.64	31.47	25.55- 25.75	9	62	3.15	21.68
18.75- 18.95	10	71	3.50	24.83	25.35- 25.55	13	53	4.55	18.53
18.55- 18.75	15	61	5.24	21.33	25.15- 25.35	5	40	1.75	13.99
18.35- 18.55	12	46	4.20	16.08	24.95- 25.15	11	35	3.85	12.24
18.15- 18.35	6	34	2.10	11.89	24.75- 24.95	5	24	1.75	6.39
17.95- 18.15	6	28	2.10	9.79	24.55- 24.75	2	19	.70	6.64
17.75- 17.95	3	22	1.05	7.69	24.35- 24.55	6	17	2.10	5.94
17.55- 17.75	8	19	2.80	6.64	24.15- 24.35	2	11	.70	3.85
17.35- 17.55	3	11	1.05	3.85	23.95- 24.15	4	9	1.40	3.15
17.15- 17.35	3	8	1.05	2.80	23.75- 23.95	0	5	0.00	1.75
16.95- 17.15	3	5	1.05	1.75	23.55- 23.75	2	5	.70	1.75
16.75- 16.95	2	2	.70	.70	23.35- 23.55	2	3	.70	1.05
					23.15- 23.35	0	1	0.00	.35
					22.95- 23.15	0	1	0.00	.35
					22.75- 22.95	0	1	0.00	.35
					22.55- 22.75	0	1	0.00	.35
					22.35- 22.55	1	1	.35	.35

FREQUENCY TABLES FOR CORE-SUBSERIES 1 MEASUREMENTS

63C HEEL-ANKLE CIRCUMF					64C FOOT BREADTH				
RANGES	FRQ	CUMF	FRQ%	CUMF%	RANGES	FRQ	CUMF	FRQ%	CUMF%
38.95- 39.25	1	287	.35	100.00	11.45- 11.55	1	286	.35	100.00
38.65- 38.95	0	286	0.00	99.65	11.35- 11.45	1	285	.35	99.65
38.35- 38.65	1	286	.35	99.65	11.25- 11.35	0	284	0.00	99.30
38.05- 38.35	0	285	0.00	99.30	11.15- 11.25	1	284	.35	99.30
37.75- 38.05	3	285	1.05	99.30	11.05- 11.15	1	283	.35	98.95
37.45- 37.75	4	282	1.39	98.26	10.95- 11.05	6	282	2.10	98.60
37.15- 37.45	3	278	1.05	96.86	10.85- 10.95	5	276	1.75	96.50
36.85- 37.15	9	275	3.14	95.82	10.75- 10.85	2	271	.70	94.76
36.55- 36.85	5	266	1.74	92.68	10.65- 10.75	13	269	4.55	94.06
36.25- 36.55	6	261	2.09	90.94	10.55- 10.65	9	256	3.15	89.51
35.95- 36.25	6	255	2.09	88.85	10.45- 10.55	14	247	4.90	86.36
35.65- 35.95	13	249	4.53	86.70	10.35- 10.45	10	233	3.50	81.47
35.35- 35.65	15	236	5.23	82.23	10.25- 10.35	16	223	5.59	77.97
35.05- 35.35	7	221	2.44	77.00	10.15- 10.25	16	207	5.59	72.38
34.75- 35.05	16	214	5.57	74.56	10.05- 10.15	15	191	5.24	66.78
34.45- 34.75	18	198	6.27	68.99	9.95- 10.05	25	176	8.74	61.54
34.15- 34.45	21	180	7.32	62.72	9.85- 9.95	16	151	5.59	52.80
33.85- 34.15	23	159	8.01	55.40	9.75- 9.85	23	135	8.04	47.20
33.55- 33.85	18	136	6.27	47.39	9.65- 9.75	22	112	7.69	39.16
33.25- 33.55	24	118	8.36	41.11	9.55- 9.65	17	90	5.94	31.47
32.95- 33.25	19	94	6.62	32.75	9.45- 9.55	22	73	7.69	25.52
32.65- 32.95	16	75	5.57	26.13	9.35- 9.45	12	51	4.20	17.83
32.35- 32.65	16	59	5.57	20.56	9.25- 9.35	11	39	3.85	13.64
32.05- 32.35	13	43	4.53	14.98	9.15- 9.25	9	28	3.15	9.79
31.75- 32.05	6	30	2.09	10.45	9.05- 9.15	3	19	1.05	6.64
31.45- 31.75	4	24	1.39	8.36	8.95- 9.05	3	16	1.05	5.59
31.15- 31.45	5	20	1.74	6.97	8.85- 8.95	4	13	1.40	4.55
30.85- 31.15	6	15	2.09	5.23	8.75- 8.85	2	9	.70	3.15
30.55- 30.85	4	9	1.39	3.14	8.65- 8.75	2	7	.70	2.45
30.25- 33.55	0	5	0.00	1.74	8.55- 8.65	1	5	.35	1.75
29.95- 30.25	1	5	.35	1.74	8.45- 8.55	1	4	.35	1.40
29.65- 29.95	2	4	.70	1.39	8.35- 8.45	1	3	.35	1.05
29.35- 29.65	0	2	0.00	.70	8.25- 8.35	0	2	0.00	.70
29.05- 29.35	1	2	.35	.70	8.15- 8.25	0	2	0.00	.70
28.75- 29.05	0	1	0.00	.35	8.05- 8.15	2	2	.70	.70
28.45- 28.75	1	1	.35	.35					

FREQUENCY TABLES FOR CORE-SUBSERIES 1 MEASUREMENTS

66C FOOT CIRCUMFERENCE				
RANGES	FRQ	CUMF	FRQ%	CUMF%
28.35- 28.55	2	287	.70	100.00
28.15- 28.35	0	285	0.00	99.30
27.95- 28.15	3	285	1.05	99.30
27.75- 27.95	1	282	.35	98.26
27.55- 27.75	5	281	1.74	97.91
27.35- 27.55	6	276	2.09	96.17
27.15- 27.35	3	270	1.05	94.08
26.95- 27.15	8	267	2.79	93.03
26.75- 26.95	5	259	1.74	90.24
26.55- 26.75	10	254	3.48	88.50
26.35- 26.55	12	244	4.18	85.02
26.15- 26.35	7	232	2.44	80.84
25.95- 26.15	17	225	5.92	78.40
25.75- 25.95	15	218	5.23	72.47
25.55- 25.75	12	193	4.18	67.25
25.35- 25.55	10	181	3.48	63.07
25.15- 25.35	11	171	3.83	59.58
24.95- 25.15	32	160	11.15	55.75
24.75- 24.95	7	128	2.44	44.60
24.55- 24.75	16	121	5.57	42.16
24.35- 24.55	35	105	12.20	36.59
24.15- 24.35	14	70	4.88	24.39
23.95- 24.15	8	56	2.79	19.51
23.75- 23.95	13	48	4.53	16.72
23.55- 23.75	7	35	2.44	12.20
23.35- 23.55	9	28	3.14	9.76
23.15- 23.35	7	19	2.44	6.62
22.95- 23.15	3	12	1.05	4.18
22.75- 22.95	1	9	.35	3.14
22.55- 22.75	2	8	.70	2.79
22.35- 22.55	1	6	.35	2.09
22.15- 22.35	2	5	.70	1.74
21.95- 22.15	1	3	.35	1.05
21.75- 21.95	0	2	0.00	.70
21.55- 21.75	1	2	.35	.70
21.35- 21.55	1	1	.35	.35

69C SPHYRION HEIGHT				
RANGES	FRQ	CUMF	FRQ%	CUMF%
9.35- 9.55	9.45	1	.286	.35 100.00
9.25- 9.45	9.35	0	.285	.00 99.65
9.15- 9.35	9.25	0	.285	0.00 99.65
9.05- 9.25	9.15	0	.285	0.00 99.65
8.95- 9.15	9.05	0	.285	0.00 99.65
8.85- 9.05	8.95	1	.285	.35 99.30
8.75- 8.95	8.85	0	.284	0.00 99.30
8.65- 8.85	8.75	2	.284	.70 99.30
8.55- 8.65	8.65	4	.282	1.40 98.60
8.45- 8.55	8.55	5	.278	1.75 97.20
8.35- 8.45	8.45	0	.273	0.00 95.45
8.25- 8.35	8.35	7	.273	2.45 95.45
8.15- 8.25	8.25	10	.266	3.50 93.01
8.05- 8.15	8.15	3	.256	1.05 89.51
7.95- 8.05	8.05	27	.253	9.44 88.46
7.85- 7.95	7.95	5	.226	1.75 79.02
7.75- 7.85	7.85	14	.221	4.90 77.27
7.65- 7.75	7.75	16	.207	5.59 72.38
7.55- 7.65	7.65	15	.191	5.24 66.78
7.45- 7.55	7.55	28	.176	9.79 61.54
7.35- 7.45	7.45	23	.148	8.04 51.75
7.25- 7.35	7.35	9	.125	3.15 43.71
7.15- 7.25	7.25	5	.116	1.75 40.56
7.05- 7.15	7.15	19	.111	6.64 38.81
6.95- 7.05	7.05	28	.92	9.79 32.17
6.85- 6.95	6.95	7	.64	2.45 22.38
6.75- 6.85	6.85	15	.57	5.24 19.93
6.65- 6.75	6.75	7	.42	2.45 14.69
6.55- 6.65	6.65	8	.35	2.80 12.24
6.45- 6.55	6.55	11	.27	3.85 9.44
6.35- 6.45	6.45	5	.16	1.75 5.59
6.25- 6.35	6.35	0	.11	0.00 3.85
6.15- 6.25	6.25	3	.11	1.05 3.85
6.05- 6.15	6.15	2	.8	.70 2.60
5.95- 6.05	6.05	5	.6	1.75 2.10
5.85- 5.95	5.95	0	.1	0.00 .35
5.75- 5.85	5.85	0	.1	0.00 .35
5.65- 5.75	5.75	0	.1	0.00 .35
5.55- 5.65	5.65	0	.1	0.00 .35
5.45- 5.55	5.55	1	.1	.35 .35

FREQUENCY TABLES FOR CORE-SUBSERIES 1 MEASUREMENTS

29T WAIST HT/OMPHALION					30T MIDSHOULDER HT/SIT				
RANGES	FRQ	CUMF	FRQ%	CUMF%	RANGES	FRQ	CUMF	FRQ%	CUMF%
119.75-120.75	1	287	.35	100.00	68.75- 69.25	2	287	.70	100.00
118.75-119.75	0	286	0.00	99.65	68.25- 68.75	4	285	1.39	99.30
117.75-118.75	1	286	.35	99.65	67.75- 68.25	2	281	.70	97.91
116.75-117.75	2	285	.70	99.30	67.25- 67.75	1	279	.35	97.21
115.75-116.75	4	283	1.39	98.61	66.75- 67.25	3	278	1.05	96.86
114.75-115.75	2	279	.70	97.21	66.25- 66.75	3	275	1.05	95.82
113.75-114.75	5	277	1.74	96.52	65.75- 66.25	7	272	2.44	94.77
112.75-113.75	12	272	4.18	94.77	65.25- 65.75	9	265	3.14	92.33
111.75-112.75	11	260	3.83	90.59	64.75- 65.25	7	256	2.44	89.20
110.75-111.75	8	249	2.79	86.76	64.25- 64.75	11	249	3.83	86.76
109.75-110.75	15	241	5.23	83.97	63.75- 64.25	11	238	3.83	82.93
108.75-109.75	11	226	3.83	78.75	63.25- 63.75	14	227	4.68	79.09
107.75-108.75	21	215	7.32	74.91	62.75- 63.25	11	213	3.83	74.22
106.75-107.75	22	194	7.67	67.60	62.25- 62.75	22	202	7.67	70.38
105.75-106.75	18	172	6.27	59.93	61.75- 62.25	23	180	8.01	62.72
104.75-105.75	22	154	7.67	53.66	61.25- 61.75	23	157	8.01	54.70
103.75-104.75	24	132	8.36	45.99	60.75- 61.25	20	134	6.97	46.69
102.75-103.75	29	108	10.10	37.63	60.25- 60.75	11	114	3.83	39.72
101.75-102.75	14	79	4.88	27.53	59.75- 60.25	16	103	5.57	35.89
100.75-101.75	16	65	5.57	22.65	59.25- 59.75	17	87	5.92	30.31
99.75-100.75	12	49	4.16	17.07	58.75- 59.25	13	70	4.53	24.39
98.75- 99.75	8	37	2.79	12.89	58.25- 58.75	10	57	3.48	19.86
97.75- 98.75	8	29	2.79	10.10	57.75- 58.25	16	47	5.57	16.38
96.75- 97.75	4	21	1.39	7.32	57.25- 57.75	8	31	2.79	10.80
95.75- 96.75	7	17	2.44	5.92	56.75- 57.25	8	23	2.79	8.01
94.75- 95.75	1	10	.35	3.48	56.25- 56.75	5	15	1.74	5.23
93.75- 94.75	5	9	1.74	3.14	55.75- 56.25	3	10	1.05	3.48
92.75- 93.75	1	4	.35	1.39	55.25- 55.75	2	7	.70	2.44
91.75- 92.75	0	3	0.00	1.05	54.75- 55.25	1	5	.35	1.74
90.75- 91.75	1	3	.35	1.05	54.25- 54.75	1	4	.35	1.39
89.75- 90.75	1	2	.35	.70	53.75- 54.25	1	3	.35	1.05
88.75- 89.75	1	1	.35	.35	53.25- 53.75	1	2	.35	.70

B-2. FREQUENCY TABLES FOR THE WORKSPACE SUBSERIES

1W OVERHEAD REACH HGT					2W FUNCTIONAL REACH				
RANGES	FRQ	CUMF	FRQ%	CUMF%	RANGES	FRQ	CUMF	FRQ%	CUMF%
238.25-239.75	1	106	.94	100.00	87.75- 88.25	2	106	1.89	100.00
236.75-238.25	0	105	0.00	99.06	87.25- 87.75	2	104	1.89	98.11
235.25-236.75	0	105	0.00	99.06	86.75- 87.25	2	102	1.89	96.23
233.75-235.25	1	105	.94	99.06	86.25- 86.75	2	100	1.89	94.34
232.25-233.75	1	104	.94	98.11	85.75- 86.25	1	98	.94	92.45
230.75-232.25	1	103	.94	97.17	85.25- 85.75	2	97	1.89	91.51
229.25-230.75	5	102	4.72	96.23	84.75- 85.25	3	95	2.83	89.62
227.75-229.25	3	97	2.83	91.51	84.25- 84.75	3	92	2.83	86.79
226.25-227.75	3	94	2.83	88.68	83.75- 84.25	3	89	2.83	83.96
224.75-226.25	5	91	4.72	85.85	83.25- 83.75	3	86	2.83	81.13
223.25-224.75	2	86	1.89	81.13	82.75- 83.25	1	83	.94	78.30
221.75-223.25	1	84	.94	79.25	82.25- 82.75	3	82	2.83	77.36
220.25-221.75	4	83	3.77	78.30	81.75- 82.25	3	79	2.83	74.53
218.75-220.25	7	79	6.60	74.53	81.25- 81.75	5	76	4.72	71.70
217.25-218.75	7	72	6.60	67.92	80.75- 81.25	3	71	2.83	66.98
215.75-217.25	8	65	7.55	61.32	80.25- 80.75	10	68	9.43	64.15
214.25-215.75	10	57	9.43	53.77	79.75- 80.25	3	58	2.83	54.72
212.75-214.25	5	47	4.72	44.34	79.25- 79.75	7	55	6.60	51.89
211.25-212.75	5	42	4.72	39.62	78.75- 79.25	10	48	9.43	45.28
209.75-211.25	8	37	7.55	34.91	78.25- 78.75	4	38	3.77	35.85
208.25-209.75	8	29	7.55	27.36	77.75- 78.25	6	34	5.66	32.08
206.75-208.25	3	21	2.83	19.81	77.25- 77.75	5	28	4.72	26.42
205.25-206.75	3	18	2.83	16.98	76.75- 77.25	4	23	3.77	21.70
203.75-205.25	5	15	4.72	14.15	76.25- 76.75	8	19	0.00	17.92
202.25-203.75	2	10	1.89	9.43	75.75- 76.25	2	19	1.89	17.92
200.75-202.25	0	8	0.00	7.55	75.25- 75.75	2	17	1.89	16.04
199.25-200.75	3	8	2.83	7.55	74.75- 75.25	2	15	1.89	14.15
197.75-199.25	2	5	1.89	4.72	74.25- 74.75	0	13	0.00	12.26
196.25-197.75	1	3	.94	2.83	73.75- 74.25	4	13	3.77	12.26
194.75-196.25	1	2	.94	1.89	73.25- 73.75	2	9	1.89	8.49
193.25-194.75	0	1	0.00	.94	72.75- 73.25	1	7	.94	6.60
191.75-193.25	0	1	0.00	.94	72.25- 72.75	0	6	0.00	5.66
190.25-191.75	0	1	0.00	.94	71.75- 72.25	2	6	1.89	5.66
188.75-190.25	0	1	0.00	.94	71.25- 71.75	0	4	0.00	3.77
187.25-188.75	0	1	0.00	.94	70.75- 71.25	1	4	.94	3.77
185.75-187.25	0	1	0.00	.94	70.25- 70.75	2	3	1.89	2.83
184.25-185.75	1	1	.94	.94	69.75- 70.25	0	1	0.00	.94
					69.25- 69.75	0	1	0.00	.94
					68.75- 69.25	'1	1	.94	.94

FREQUENCY TABLES FOR WORK SPACE MEASUREMENTS

3W FUNCTIONAL RCH/EXT		RANGES		FRQ CUMF		FRQ% CUMF%	
103.75-104.75	2	106	1.89	100.00			
102.75-103.75	0	104	0.00	98.11			
101.75-102.75	3	104	2.83	98.11			
100.75-101.75	2	101	1.89	95.28			
99.75-100.75	4	99	3.77	93.40			
98.75- 99.75	0	95	0.00	89.62			
97.75- 98.75	6	95	5.66	89.62			
96.75- 97.75	2	89	1.89	83.90			
95.75- 96.75	3	87	2.83	82.08			
94.75- 95.75	5	84	4.72	79.25			
93.75- 94.75	3	79	2.83	74.53			
92.75- 93.75	14	76	13.21	71.70			
91.75- 92.75	8	62	7.55	58.49			
90.75- 91.75	8	54	7.55	50.94			
89.75- 90.75	7	46	6.60	43.40			
88.75- 89.75	10	39	9.43	36.79			
87.75- 88.75	6	29	5.66	27.36			
86.75- 87.75	3	23	2.83	21.70			
85.75- 86.75	8	20	7.55	18.87			
84.75- 85.75	3	12	2.83	11.32			
83.75- 84.75	5	9	4.72	8.49			
82.75- 83.75	2	4	1.89	3.77			
81.75- 82.75	1	2	.94	1.89			
80.75- 81.75	0	1	0.00	.94			
79.75- 80.75	3	1	0.00	.94			
78.75- 79.75	0	1	0.00	.94			
77.75- 78.75	1	1	.94	.94			

4W OVERHEAD REACH/SIT		RANGES		FRQ CUMF		FRQ% CUMF%	
153.45-154.45	1	100	.94	100.00			
152.45-153.45	0	105	0.00	99.06			
151.45-152.45	1	105	.94	99.06			
150.45-151.45	0	104	0.00	98.11			
149.45-150.45	1	104	.94	98.11			
148.45-149.45	1	103	.94	97.17			
147.45-148.45	0	102	0.00	96.23			
146.45-147.45	0	102	.94	96.23			
145.45-146.45	1	102	.94	96.23			
144.45-145.45	5	101	4.72	95.28			
143.45-144.45	1	96	.94	90.57			
142.45-143.45	5	95	4.72	89.62			
141.45-142.45	7	90	6.60	64.91			
140.45-141.45	0	83	5.56	78.30			
139.45-140.45	7	77	6.60	72.04			
138.45-139.45	7	70	6.60	60.04			
137.45-138.45	4	63	3.77	59.43			
136.45-137.45	4	59	3.77	55.66			
135.45-136.45	10	55	9.43	51.89			
134.45-135.45	10	45	9.43	42.45			
133.45-134.45	5	35	4.72	33.02			
132.45-133.45	9	30	8.49	28.30			
131.45-132.45	6	21	5.66	19.81			
130.45-131.45	6	15	5.55	14.15			
129.45-130.45	1	9	.94	8.49			
128.45-129.45	3	8	2.83	7.05			
127.45-128.45	0	5	1.00	4.72			
126.45-127.45	2	2	1.89	4.72			
125.45-126.45	0	3	0.00	2.83			
124.45-125.45	0	3	0.00	2.83			
123.45-124.45	1	3	.94	2.83			
122.45-123.45	0	2	0.00	1.89			
121.45-122.45	0	2	0.00	1.89			
120.45-121.45	1	2	.94	1.89			
119.45-120.45	0	1	1.00	.94			
118.45-119.45	1	1	.94	.94			

FREQUENCY TABLES FOR WORK SPACE MEASUREMENTS

5W FUNCTIONAL LEG LN		6W WEIGHT (CLOTHED)							
RANGES	FRQ	CUMF	FRQ%	CUMF%	RANGES	FRQ	CUMF	FRQ%	CUMF%
130.75-131.75	2	106	1.89	106.00	224.75-227.25	1	106	.94	100.00
129.75-130.75	0	104	0.00	98.11	222.25-224.75	0	105	0.00	99.06
128.75-129.75	0	104	0.00	98.11	219.75-222.25	0	105	0.00	99.06
127.75-128.75	3	104	2.83	98.11	217.25-219.75	1	105	.94	99.06
126.75-127.75	3	101	2.83	95.28	214.75-217.25	0	104	0.00	98.11
125.75-126.75	2	98	1.89	92.45	212.25-214.75	0	104	0.00	98.11
124.75-125.75	4	96	3.77	90.57	209.75-212.25	0	104	0.00	98.11
123.75-124.75	2	92	1.89	86.79	207.25-209.75	1	104	.94	98.11
122.75-123.75	4	90	3.77	84.91	204.75-207.25	0	103	0.00	97.17
121.75-122.75	9	86	8.49	81.13	202.25-204.75	1	103	.94	97.17
120.75-121.75	7	77	6.60	72.64	199.75-202.25	1	102	.94	96.23
119.75-120.75	9	70	8.49	66.04	197.25-199.75	0	101	0.00	95.28
118.75-119.75	7	61	6.60	57.55	194.75-197.25	2	101	1.89	95.28
117.75-118.75	6	54	5.66	50.94	192.25-194.75	2	99	1.89	93.40
116.75-117.75	10	48	9.43	45.28	189.75-192.25	2	97	1.89	91.51
115.75-116.75	6	38	5.66	35.85	187.25-189.75	3	95	2.83	89.62
114.75-115.75	6	32	5.66	30.19	184.75-187.25	1	92	.94	86.79
113.75-114.75	4	26	3.77	24.53	182.25-184.75	2	91	1.89	85.85
112.75-113.75	2	22	1.89	20.75	179.75-182.25	2	89	1.89	83.96
111.75-112.75	7	20	6.60	18.87	177.25-179.75	3	87	2.83	82.08
110.75-111.75	7	13	6.60	12.26	174.75-177.25	5	84	4.72	79.25
109.75-110.75	4	0	3.77	5.66	172.25-174.75	1	79	.94	74.53
108.75-109.75	1	2	.94	1.89	169.75-172.25	1	78	.94	73.58
107.75-108.75	0	1	0.00	.94	167.25-169.75	2	77	1.89	72.64
106.75-107.75	0	1	0.00	.94	164.75-167.25	5	75	4.72	70.75
105.75-106.75	0	1	0.00	.94	162.25-164.75	3	70	2.83	66.04
104.75-105.75	1	1	.94	.94	159.75-162.25	5	67	4.72	63.21
					157.25-159.75	5	62	4.72	58.49
					154.75-157.25	7	57	6.60	53.77
					152.25-154.75	6	50	5.66	47.17
					149.75-152.25	4	44	3.77	41.51
					147.25-149.75	2	40	1.89	37.74
					144.75-147.25	6	38	5.66	35.85
					142.25-144.75	11	32	10.38	30.19
					139.75-142.25	4	21	3.77	19.81
					137.25-139.75	5	17	4.72	16.04
					134.75-137.25	1	12	.94	11.32
					132.25-134.75	3	11	2.83	10.38
					129.75-132.25	0	8	0.00	7.55
					127.25-129.75	3	8	2.83	7.55
					124.75-127.25	3	5	2.83	4.72
					122.25-124.75	1	2	.94	1.89
					119.75-122.25	0	1	0.00	.94
					117.25-119.75	0	1	0.00	.94
					114.75-117.25	0	1	0.00	.94
					112.25-114.75	0	1	0.00	.94
					109.75-112.25	0	1	0.00	.94
					107.25-109.75	1	1	.94	.94

FREQUENCY TABLES FOR WORK SPACE MEASUREMENTS

7W STATURE (CLOTHED)

RANGES	FRQ	CUMF	FRQ%	CUMF%
195.75-196.75	1	106	.94	100.00
194.75-195.75	0	105	0.00	99.06
193.75-194.75	0	105	0.00	99.06
192.75-193.75	0	105	0.00	99.06
191.75-192.75	0	105	0.00	99.06
190.75-191.75	0	105	0.00	99.06
189.75-190.75	2	105	1.89	99.06
188.75-189.75	3	103	2.83	97.17
187.75-188.75	1	100	.94	94.34
186.75-187.75	0	99	0.00	93.40
185.75-186.75	6	99	5.66	93.40
184.75-185.75	2	93	1.89	87.74
183.75-184.75	2	91	1.89	85.85
182.75-183.75	4	89	3.77	83.96
181.75-182.75	8	85	7.55	80.19
180.75-181.75	7	77	6.60	72.64
179.75-180.75	3	70	2.83	66.04
178.75-179.75	5	67	4.72	63.21
177.75-178.75	7	62	6.60	58.49
176.75-177.75	10	55	9.43	51.89
175.75-176.75	6	45	5.66	42.45
174.75-175.75	8	39	7.55	36.79
173.75-174.75	2	31	1.89	29.25
172.75-173.75	6	29	5.66	27.36
171.75-172.75	8	23	7.55	21.70
170.75-171.75	4	15	3.77	14.15
169.75-170.75	2	11	1.89	10.38
168.75-169.75	3	9	2.83	8.49
167.75-168.75	3	6	2.83	5.66
166.75-167.75	0	3	0.00	2.83
165.75-166.75	0	3	0.00	2.83
164.75-165.75	0	3	0.00	2.83
163.75-164.75	1	3	.94	2.83
162.75-163.75	0	2	0.00	1.89
161.75-162.75	0	2	0.00	1.89
160.75-161.75	2	2	1.89	1.89

8W OVERHEAD RCH BRDTH

RANGES	FRQ	CUMF	FRQ%	CUMF%
44.05- 44.35	1	106	.94	100.00
43.75- 44.05	0	105	0.00	99.06
43.45- 43.75	0	105	0.00	99.06
43.15- 43.45	1	105	.94	99.06
42.85- 43.15	0	104	0.00	98.11
42.55- 42.85	1	104	.94	98.11
42.25- 42.55	2	103	1.89	97.17
41.95- 42.25	0	101	0.00	95.28
41.65- 41.95	0	101	0.00	95.28
41.35- 41.65	2	101	1.89	95.28
41.05- 41.35	5	99	4.72	93.40
40.75- 41.05	1	94	.94	88.68
40.45- 40.75	4	93	3.77	87.74
40.15- 40.45	8	89	7.55	83.96
39.85- 40.15	5	81	4.72	76.42
39.55- 39.85	5	76	4.72	71.70
39.25- 39.55	3	71	2.83	66.98
38.95- 39.25	2	68	1.89	64.15
38.65- 38.95	7	66	6.60	62.26
38.35- 38.65	7	59	6.60	55.66
38.05- 38.35	6	52	5.66	49.06
37.75- 38.05	6	46	5.66	43.40
37.45- 37.75	7	40	6.60	37.74
37.15- 37.45	7	33	6.60	31.13
36.85- 37.15	7	26	6.60	24.53
36.55- 36.85	4	19	3.77	17.92
36.25- 36.55	0	15	0.00	14.15
35.95- 36.25	2	15	1.89	14.15
35.65- 35.95	3	13	2.83	12.26
35.35- 35.65	0	10	0.00	9.43
35.05- 35.35	5	10	4.72	9.43
34.75- 35.05	2	5	1.89	4.72
34.45- 34.75	1	3	.94	2.83
34.15- 34.45	1	2	.94	1.89
33.85- 34.15	0	1	0.00	.94
33.55- 33.85	1	1	.94	.94

FREQUENCY TABLES FOR WORK SPACE MEASUREMENTS

9H BENT TORSO HEIGHT		10W BENT TORSO BREADTH								
RANGES	FRQ	CUMF	FRQ%	CUMF%	RANGES	FRQ	CUMF	FRQ%	CUMF%	
151.75-152.75	3	106	2.83	100.00	51.55-	51.85	1	106	.94	100.00
150.75-151.75	1	103	.94	97.17	51.25-	51.55	0	105	0.00	99.06
149.75-150.75	1	102	.94	96.23	50.95-	51.25	0	105	0.00	99.06
148.75-149.75	2	101	1.89	95.28	50.65-	50.95	0	105	0.00	99.06
147.75-148.75	2	99	1.89	93.40	50.35-	50.65	0	105	0.00	99.06
146.75-147.75	2	97	1.89	91.51	50.05-	50.35	0	105	0.00	99.06
145.75-146.75	5	95	4.72	89.62	49.75-	50.05	1	105	.94	98.11
144.75-145.75	1	90	.94	84.91	49.45-	49.75	1	104	.94	97.17
143.75-144.75	6	89	5.66	83.96	49.15-	49.45	0	103	0.00	97.17
142.75-143.75	5	83	4.72	78.30	48.85-	49.15	1	103	.94	97.17
141.75-142.75	4	78	3.77	73.58	48.55-	48.85	0	102	0.00	96.23
140.75-141.75	2	74	1.89	69.81	48.25-	48.55	2	102	1.89	96.23
139.75-140.75	6	72	5.66	67.92	47.95-	48.25	1	100	.94	94.34
138.75-139.75	4	66	3.77	62.26	47.65-	47.95	1	99	.94	93.40
137.75-138.75	5	62	4.72	58.49	47.35-	47.65	3	98	2.83	92.45
136.75-137.75	5	57	4.72	53.77	47.05-	47.35	1	95	.94	89.62
135.75-136.75	5	52	4.72	49.06	46.75-	47.05	7	94	6.60	88.68
134.75-135.75	3	47	2.83	44.34	46.45-	46.75	2	87	1.89	82.08
133.75-134.75	4	44	3.77	41.51	46.15-	46.45	3	85	2.83	80.19
132.75-133.75	11	40	10.38	37.74	45.85-	46.15	5	82	4.72	77.36
131.75-132.75	7	29	6.60	27.36	45.55-	45.85	2	77	1.89	72.64
130.75-131.75	3	22	2.83	20.75	45.25-	45.55	8	75	7.55	70.75
129.75-130.75	2	19	1.89	17.92	44.95-	45.25	13	67	12.26	63.21
128.75-129.75	3	17	2.83	16.04	44.65-	44.95	6	54	5.66	50.94
127.75-128.75	3	14	2.83	13.21	44.35-	44.65	9	48	8.49	45.28
126.75-127.75	3	11	2.83	10.38	44.05-	44.35	6	39	5.06	36.79
125.75-126.75	3	8	2.83	7.55	43.75-	44.05	2	33	1.89	31.13
124.75-125.75	1	5	.94	4.72	43.45-	43.75	5	31	4.72	29.25
123.75-124.75	0	4	0.00	3.77	43.15-	43.45	2	26	1.89	24.53
122.75-123.75	3	4	2.83	3.77	42.85-	43.15	5	24	4.72	22.64
121.75-122.75	0	1	0.00	.94	42.55-	42.85	1	19	.94	17.92
120.75-121.75	0	1	0.00	.94	42.25-	42.55	4	18	3.77	16.98
119.75-120.75	1	1	.94	.94	41.95-	42.25	1	14	.94	13.21
					41.65-	41.95	6	13	5.66	12.26
					41.35-	41.65	0	7	0.00	6.60
					41.05-	41.35	1	7	.94	6.60
					40.75-	41.05	1	6	.94	5.66
					40.45-	40.75	0	5	0.00	4.72
					40.15-	40.45	2	5	1.89	4.72
					39.85-	40.15	0	3	0.00	2.83
					39.55-	39.85	1	3	.94	2.83
					39.25-	39.55	0	2	0.00	1.89
					38.95-	39.25	0	2	0.00	1.89
					38.65-	38.95	1	2	.94	1.89
					38.35-	38.65	0	1	0.00	.94
					38.05-	38.35	0	1	0.00	.94
					37.75-	38.05	1	1	.94	.94

FREQUENCY TABLES FOR WORK SPACE MEASUREMENTS

11W KNEELING HEIGHT

RANGES	FRQ	CUMF	FRQ%	CUMF%
141.25-141.75	1	106	.94	100.00
140.75-141.25	0	105	0.00	99.06
140.25-140.75	0	105	0.00	99.06
139.75-140.25	0	105	0.00	99.06
139.25-139.75	1	105	.94	99.06
138.75-139.25	0	104	0.00	98.11
138.25-138.75	0	104	0.00	98.11
137.75-138.25	0	104	0.00	98.11
137.25-137.75	3	104	2.83	98.11
136.75-137.25	1	101	.94	95.28
136.25-136.75	0	100	0.00	94.34
135.75-136.25	3	100	2.83	94.34
135.25-135.75	1	97	.94	91.51
134.75-135.25	1	96	.94	90.57
134.25-134.75	1	95	.94	89.62
133.75-134.25	5	94	4.72	88.08
133.25-133.75	1	89	.94	83.96
132.75-133.25	6	88	5.66	83.02
132.25-132.75	6	82	5.66	77.36
131.75-132.25	1	76	.94	71.70
131.25-131.75	6	75	5.66	70.75
130.75-131.25	6	69	5.66	65.09
130.25-130.75	3	63	2.83	59.43
129.75-130.25	2	60	1.89	56.60
129.25-129.75	3	58	2.83	54.72
128.75-129.25	3	55	2.83	51.89
128.25-128.75	2	52	1.89	49.06
127.75-128.25	5	50	4.72	47.17
127.25-127.75	4	45	3.77	42.45
126.75-127.25	7	41	6.60	38.68
126.25-126.75	5	34	4.72	32.08
125.75-126.25	4	29	3.77	27.36
125.25-125.75	8	25	7.55	23.58
124.75-125.25	2	17	1.89	16.04
124.25-124.75	2	15	1.89	14.15
123.75-124.25	2	13	1.89	12.26
123.25-123.75	0	11	0.00	10.38
122.75-123.25	5	11	4.72	10.38
122.25-122.75	2	6	1.89	5.66
121.75-122.25	1	4	.94	3.77
121.25-121.75	0	3	0.04	2.83
120.75-121.25	0	3	0.00	2.83
120.25-120.75	0	3	0.00	2.83
119.75-120.25	0	3	0.00	2.83
119.25-119.75	0	3	0.00	2.83
118.75-119.25	0	3	0.00	2.83
118.25-118.75	1	3	.94	2.83
117.75-118.25	1	2	.94	1.89
117.25-117.75	0	1	0.00	.94
116.75-117.25	1	1	.94	.94

12W KNEELING LEG LNGTH

RANGES	FRQ	CUMF	FRQ%	CUMF%
78.75- 79.25	1	106	.94	100.00
78.25- 78.75	0	105	0.00	99.06
77.75- 78.25	0	105	0.00	99.06
77.25- 77.75	0	105	0.00	99.06
76.75- 77.25	0	105	0.00	99.06
76.25- 76.75	0	105	0.00	99.06
75.75- 76.25	2	105	1.89	99.06
75.25- 75.75	4	103	3.77	97.17
74.75- 75.25	1	99	.94	93.40
74.25- 74.75	1	98	.94	92.45
73.75- 74.25	4	97	3.77	91.51
73.25- 73.75	1	93	.94	87.74
72.75- 73.25	4	92	3.77	86.79
72.25- 72.75	5	88	4.72	83.02
71.75- 72.25	3	83	2.83	78.30
71.25- 71.75	2	80	1.89	75.47
70.75- 71.25	12	78	11.32	73.58
70.25- 70.75	4	66	3.77	62.26
69.75- 70.25	6	62	5.66	58.49
69.25- 69.75	5	56	4.72	52.83
68.75- 69.25	6	51	5.66	48.11
68.25- 68.75	5	45	4.72	42.45
67.75- 68.25	5	40	4.72	37.74
67.25- 67.75	5	35	4.72	33.02
66.75- 67.25	7	30	6.60	28.30
66.25- 66.75	4	23	3.77	21.70
65.75- 66.25	2	19	1.89	17.92
65.25- 65.75	4	17	3.77	16.04
64.75- 65.25	5	13	4.72	12.26
64.25- 64.75	2	8	1.89	7.55
63.75- 64.25	1	6	.94	5.66
63.25- 63.75	1	5	.94	4.72
62.75- 63.25	0	4	0.00	3.77
62.25- 62.75	1	4	.94	3.77
61.75- 62.25	0	3	0.00	2.83
61.25- 61.75	1	3	.94	2.83
60.75- 61.25	0	2	0.00	1.89
60.25- 60.75	0	2	0.00	1.89
59.75- 60.25	0	2	0.00	1.89
59.25- 59.75	1	2	.94	1.89
58.75- 59.25	0	1	0.00	.94
58.25- 58.75	0	1	0.00	.94
57.75- 58.25	0	1	0.00	.94
57.25- 57.75	0	1	0.00	.94
56.75- 57.25	1	1	.94	.94

FREQUENCY TABLES FOR WORK SPACE MEASUREMENTS

13W BENT KNEE HEIGHT

RANGES	FRQ	CUMF	FRQ%	CUMF%
54.85- 55.15	1	106	.94	100.00
54.55- 54.85	0	105	0.00	99.06
54.25- 54.55	1	105	.94	99.06
53.95- 54.25	2	104	1.89	98.11
53.65- 53.95	1	102	.94	96.23
53.35- 53.65	1	101	.94	95.28
53.05- 53.35	2	100	1.89	94.34
52.75- 53.05	3	98	2.83	92.45
52.45- 52.75	1	95	.94	89.62
52.15- 52.45	1	94	.94	88.68
51.85- 52.15	3	93	2.83	87.74
51.55- 51.85	5	90	4.72	84.91
51.25- 51.55	3	85	2.83	80.19
50.95- 51.25	3	82	2.83	77.36
50.65- 50.95	5	79	4.72	74.53
50.35- 50.65	6	74	5.66	69.81
50.05- 50.35	2	68	1.89	64.15
49.75- 50.05	1	66	.94	62.26
49.45- 49.75	3	65	2.83	61.32
49.15- 49.45	6	62	5.66	58.49
48.85- 49.15	2	56	1.89	52.83
48.55- 48.85	4	54	3.77	50.94
48.25- 48.55	6	50	5.66	47.17
47.95- 48.25	5	44	4.72	41.51
47.65- 47.95	7	39	6.60	36.79
47.35- 47.65	3	32	2.83	30.19
47.05- 47.35	5	29	4.72	27.36
46.75- 47.05	2	24	1.89	22.64
46.45- 46.75	7	22	6.60	20.75
46.15- 46.45	3	15	2.83	14.15
45.85- 46.15	3	12	2.83	11.32
45.55- 45.85	1	9	.94	8.49
45.25- 45.55	3	8	0.00	7.55
44.95- 45.25	1	8	.94	7.55
44.65- 44.95	1	7	.94	6.60
44.35- 44.65	0	6	0.00	5.66
44.05- 44.35	2	6	1.89	5.66
43.75- 44.05	1	4	.94	3.77
43.45- 43.75	2	3	1.89	2.83
43.15- 43.45	0	1	0.00	.94
42.85- 43.15	0	1	0.00	.94
42.55- 42.85	0	1	0.00	.94
42.25- 42.55	0	1	0.00	.94
41.95- 42.25	0	1	0.00	.94
41.65- 41.95	1	1	.94	.94

14W HORIZ L/KNEES BENT

RANGES	FRQ	CUMF	FRQ%	CUMF%
174.75-175.75	2	106	1.89	100.00
173.75-174.75	3	104	2.83	98.11
172.75-173.75	1	101	.94	95.28
171.75-172.75	3	100	2.83	94.34
170.75-171.75	2	97	1.89	91.51
169.75-170.75	3	95	2.83	89.62
168.75-169.75	3	92	2.83	86.79
167.75-168.75	1	89	.94	83.96
166.75-167.75	4	88	3.77	83.02
165.75-166.75	3	84	2.83	79.25
164.75-165.75	8	81	7.55	76.42
163.75-164.75	5	73	4.72	68.87
162.75-163.75	4	68	3.77	64.15
161.75-162.75	8	64	7.55	60.38
160.75-161.75	2	56	1.89	52.83
159.75-160.75	7	54	6.60	50.94
158.75-159.75	8	47	7.55	44.34
157.75-158.75	3	39	2.83	36.79
156.75-157.75	6	36	5.66	33.96
155.75-156.75	7	30	6.60	28.30
154.75-155.75	2	23	1.89	21.70
153.75-154.75	4	21	3.77	19.81
152.75-153.75	4	17	3.77	16.04
151.75-152.75	5	13	4.72	12.26
150.75-151.75	3	8	2.83	7.55
149.75-150.75	2	5	1.89	4.72
148.75-149.75	2	3	1.89	2.83
147.75-148.75	1	1	.94	.94

FREQUENCY TABLES FOR WORK SPACE MEASUREMENTS

1C WEIGHT-NUDE

RANGES	FRQ	CUMF	FRQ%	CUMF%
219.75-222.25	1	106	.94	100.00
217.25-219.75	0	105	0.00	99.06
214.75-217.25	0	105	0.00	99.06
212.25-214.75	0	105	0.00	99.06
209.75-212.25	1	105	.94	99.06
207.25-209.75	0	104	0.00	98.11
204.75-207.25	0	104	0.00	98.11
202.25-204.75	0	104	0.00	98.11
199.75-202.25	1	104	.94	98.11
197.25-199.75	0	103	0.06	97.17
194.75-197.25	2	103	1.89	97.17
192.25-194.75	0	101	0.00	95.28
189.75-192.25	1	101	.94	95.28
187.25-189.75	1	100	.94	94.34
184.75-187.25	3	99	2.83	93.40
182.25-184.75	2	96	1.89	90.57
179.75-182.25	2	94	1.89	88.68
177.25-179.75	1	92	.94	86.79
174.75-177.25	3	91	2.83	85.85
172.25-174.75	3	88	2.83	83.02
169.75-172.25	5	85	4.72	80.19
167.25-169.75	2	80	1.89	75.47
164.75-167.25	1	78	.94	73.58
162.25-164.75	2	77	1.89	72.64
159.75-162.25	4	75	3.77	70.75
157.25-159.75	5	71	4.72	66.98
154.75-157.25	4	66	3.77	62.26
152.25-154.75	4	62	3.77	58.49
149.75-152.25	7	58	6.66	54.72
147.25-149.75	5	51	4.72	48.11
144.75-147.25	3	46	2.83	43.40
142.25-144.75	6	43	5.66	40.57
139.75-142.25	2	37	1.89	34.91
137.25-139.75	10	35	9.43	33.02
134.75-137.25	8	25	7.55	23.58
132.25-134.75	4	17	3.77	10.04
129.75-132.25	2	13	1.89	12.26
127.25-129.75	3	11	2.83	10.38
124.75-127.25	0	8	0.00	7.55
122.25-124.75	2	8	1.89	7.55
119.75-122.25	2	6	1.89	5.66
117.25-119.75	3	4	2.83	3.77
114.75-117.25	0	1	0.00	.94
112.25-114.75	0	1	0.00	.94
109.75-112.25	0	1	0.00	.94
107.25-109.75	0	1	0.00	.94
104.75-107.25	0	1	0.00	.94
102.25-104.75	1	1	.94	.94

2C STATURE-NUDE

RANGES	FRQ	CUMF	FRQ%	CUMF%
192.75-193.75	1	106	.94	100.00
191.75-192.75	0	105	0.00	99.06
190.75-191.75	0	105	0.00	99.06
189.75-190.75	0	105	0.00	99.06
188.75-189.75	0	105	0.00	99.00
187.75-188.75	0	105	0.00	99.00
186.75-187.75	1	105	.94	99.06
185.75-186.75	1	104	.94	98.11
184.75-185.75	3	103	2.83	97.17
183.75-184.75	1	100	.94	94.34
182.75-183.75	3	99	2.83	93.40
181.75-182.75	3	96	2.83	90.57
180.75-181.75	4	93	3.77	87.74
179.75-180.75	3	89	2.83	83.96
178.75-179.75	4	86	3.77	81.13
177.75-178.75	4	82	3.77	77.36
176.75-177.75	8	78	7.55	73.58
175.75-176.75	5	70	4.72	66.04
174.75-175.75	5	65	4.72	61.32
173.75-174.75	10	60	9.43	50.60
172.75-173.75	4	50	3.77	47.17
171.75-172.75	7	46	6.60	43.40
170.75-171.75	7	39	6.60	36.79
169.75-170.75	5	32	4.72	30.19
168.75-169.75	6	27	5.66	25.47
167.75-168.75	6	21	5.66	19.81
166.75-167.75	4	15	3.77	14.15
165.75-166.75	3	11	2.83	10.38
164.75-165.75	1	8	.94	7.55
163.75-164.75	1	7	.94	6.60
162.75-163.75	3	6	2.83	5.66
161.75-162.75	0	3	0.00	2.83
160.75-161.75	0	3	0.00	2.83
159.75-160.75	1	3	.94	2.83
158.75-159.75	0	2	.00	1.89
157.75-158.75	1	2	.94	1.89
156.75-157.75	0	1	0.00	.94
155.75-156.75	1	1	.94	.94

B-3. FREQUENCY TABLES FOR THE HEAD AND FACE SUBSERIES

1H SAGITTAL ARC

RANGES	FRQ	CUMF	FRQ%	CUMF%
38.75- 38.95	1	102	.98	100.00
38.55- 38.75	0	101	0.00	99.02
38.35- 38.55	1	101	.98	99.02
38.15- 38.35	1	100	.98	98.04
37.95- 38.15	1	99	.98	97.06
37.75- 37.95	1	98	.98	96.08
37.55- 37.75	0	97	0.00	95.10
37.35- 37.55	1	97	.98	95.10
37.15- 37.35	1	96	.98	94.12
36.95- 37.15	1	95	.98	93.14
36.75- 36.95	3	94	2.94	92.16
36.55- 36.75	1	91	.98	89.22
36.35- 36.55	0	90	0.00	88.24
36.15- 36.35	5	90	4.90	88.24
35.95- 36.15	3	85	2.94	83.33
35.75- 35.95	5	82	4.90	80.39
35.55- 35.75	1	77	.98	75.49
35.35- 35.55	5	76	4.90	74.51
35.15- 35.35	7	71	6.86	69.61
34.95- 35.15	6	64	5.88	62.75
34.75- 34.95	10	58	9.80	56.86
34.55- 34.75	4	48	3.92	47.06
34.35- 34.55	5	44	4.90	43.14
34.15- 34.35	8	39	7.84	38.24
33.95- 34.15	2	31	1.96	30.39
33.75- 33.95	5	29	4.90	28.43
33.55- 33.75	1	24	.98	23.53
33.35- 33.55	7	23	6.86	22.55
33.15- 33.35	4	16	3.92	15.69
32.95- 33.15	6	12	5.88	11.76
32.75- 32.95	1	6	.98	5.88
32.55- 32.75	2	5	1.96	4.90
32.35- 32.55	0	3	0.00	2.94
32.15- 32.35	0	3	0.00	2.94
31.95- 32.15	0	3	0.00	2.94
31.75- 31.95	0	3	0.00	2.94
31.55- 31.75	1	3	.98	2.94
31.35- 31.55	1	2	.98	1.96
31.15- 31.35	0	1	0.00	.98
30.95- 31.15	0	1	0.00	.98
30.75- 30.95	0	1	0.00	.98
30.55- 30.75	0	1	0.00	.98
30.35- 30.55	0	1	0.00	.98
30.15- 30.35	0	1	0.00	.98
29.95- 30.15	1	1	.98	.98

2H BIT'ON-CORONAL ARC

RANGES	FRQ	CUMF	FRQ%	CUMF%
37.15- 37.35	1	102	.98	100.00
36.95- 37.15	0	101	0.00	99.02
36.75- 36.95	0	101	0.00	99.02
36.55- 36.75	2	101	1.96	99.02
36.35- 36.55	1	99	.98	97.06
35.95- 36.15	4	98	3.92	96.08
35.75- 35.95	4	94	3.92	92.16
35.55- 35.75	1	90	.98	88.24
35.35- 35.55	3	89	2.94	87.25
35.15- 35.35	0	86	0.00	84.31
34.95- 35.15	14	86	13.73	84.31
34.75- 34.95	7	72	6.86	70.59
34.55- 34.75	3	65	2.94	63.73
34.35- 34.55	7	62	6.86	60.78
34.15- 34.35	5	55	4.90	53.92
33.95- 34.15	6	50	5.88	49.02
33.75- 33.95	4	44	3.92	43.14
33.55- 33.75	4	40	3.92	39.22
33.35- 33.55	7	36	6.86	35.29
33.15- 33.35	4	29	3.92	28.43
32.95- 33.15	9	25	8.82	24.51
32.75- 32.95	1	16	.98	15.69
32.55- 32.75	2	15	1.96	14.71
32.35- 32.55	5	13	4.90	12.75
32.15- 32.35	2	8	1.96	7.84
31.95- 32.15	1	6	.98	5.88
31.75- 31.95	0	5	0.00	4.90
31.55- 31.75	2	5	1.96	4.90
31.35- 31.55	2	3	1.96	2.94
31.15- 31.35	0	1	0.00	.98
30.95- 31.15	1	1	.98	.98

FREQUENCY TABLES FOR HEAD AND FACE MEASUREMENTS

3H BIT°ON-FRONTAL ARC				
RANGES	FRQ	CUMF	FRQ%	CUMF%
31.55- 31.75	2	102	1.96	100.00
31.35- 31.55	2	100	1.96	98.04
31.15- 31.35	1	98	.98	96.08
30.95- 31.15	3	97	2.94	95.10
30.75- 30.95	2	94	1.96	92.16
30.55- 30.75	3	92	2.94	90.20
30.35- 30.55	4	89	3.92	87.25
30.15- 30.35	3	85	2.94	83.33
29.95- 30.15	7	82	6.86	80.39
29.75- 29.95	5	75	4.90	73.53
29.55- 29.75	10	70	9.80	68.63
29.35- 29.55	11	60	10.78	58.82
29.15- 29.35	9	49	8.82	48.04
28.95- 29.15	3	40	2.94	39.22
28.75- 28.95	4	37	3.92	36.27
28.55- 28.75	5	33	4.90	32.35
28.35- 28.55	9	28	8.82	27.45
28.15- 28.35	4	19	3.92	18.63
27.95- 28.15	7	15	6.86	14.71
27.75- 27.95	0	8	0.00	7.84
27.55- 27.75	3	8	2.94	7.84
27.35- 27.55	2	5	1.96	4.90
27.15- 27.35	1	3	.98	2.94
26.95- 27.15	1	2	.98	1.96
26.75- 26.95	0	1	0.00	.98
26.55- 26.75	0	1	0.00	.98
26.35- 26.55	1	1	.98	.98

4H BITR°ON-MENTON ARC				
RANGES	FRQ	CUMF	FRQ%	CUMF%
34.15- 34.35	1	102	.98	100.00
33.95- 34.15	1	101	.98	99.02
33.75- 33.95	0	100	0.00	98.04
33.55- 33.75	0	100	0.00	98.04
33.35- 33.55	2	100	1.96	98.04
33.15- 33.35	1	98	.98	96.08
32.95- 33.15	1	97	.98	95.10
32.75- 32.95	3	96	2.94	94.12
32.55- 32.75	5	93	4.90	91.18
32.35- 32.55	4	88	3.92	86.27
32.15- 32.35	8	84	7.84	82.35
31.95- 32.15	5	76	4.90	74.51
31.75- 31.95	3	71	2.94	69.61
31.55- 31.75	4	68	3.92	66.67
31.35- 31.55	8	64	7.84	62.75
31.15- 31.35	3	56	2.94	54.90
30.95- 31.15	8	53	7.84	51.96
30.75- 30.95	5	45	4.90	44.12
30.55- 30.75	3	40	2.94	39.22
30.35- 30.55	8	37	7.84	36.27
30.15- 30.35	2	29	1.96	28.43
29.95- 30.15	7	27	6.80	26.47
29.75- 29.95	3	20	2.94	19.61
29.55- 29.75	2	17	1.96	16.67
29.35- 29.55	5	15	4.90	14.71
29.15- 29.35	3	10	2.94	9.80
28.95- 29.15	2	7	1.96	6.86
28.75- 28.95	0	5	0.00	4.90
28.55- 28.75	4	5	3.92	4.90
28.35- 28.55	0	1	0.00	.98
28.15- 28.35	1	1	.98	.98

FREQUENCY TABLES FOR HEAD AND FACE MEASUREMENTS

5H BIT-SUBMANDBLR ARC				
RANGES	FRQ	CUMF	FRQ%	CUMF%
31.75- 31.95	1	102	.98	100.00
31.55- 31.75	0	101	0.00	99.02
31.35- 31.55	0	101	0.00	99.02
31.15- 31.35	0	101	0.00	99.02
30.95- 31.15	0	101	0.00	99.02
30.75- 30.95	4	101	3.92	99.02
30.55- 30.75	2	97	1.96	95.10
30.35- 30.55	4	95	3.92	93.14
30.15- 30.35	4	91	3.92	89.22
29.95- 30.15	2	87	1.96	85.29
29.75- 29.95	5	85	4.90	83.33
29.55- 29.75	5	80	4.90	78.43
29.35- 29.55	3	75	2.94	73.53
29.15- 29.35	6	72	5.88	70.59
28.95- 29.15	7	66	6.86	64.71
28.75- 28.95	6	59	5.88	57.84
28.55- 28.75	6	53	5.88	51.96
28.35- 28.55	5	47	4.90	46.08
28.15- 28.35	5	42	4.90	41.18
27.95- 28.15	3	37	2.94	36.27
27.75- 27.95	3	34	2.94	33.33
27.55- 27.75	2	31	1.96	30.39
27.35- 27.55	9	29	8.82	28.43
27.15- 27.35	5	20	4.90	19.61
26.95- 27.15	4	15	3.92	14.71
26.75- 26.95	4	11	3.92	10.78
26.55- 26.75	4	7	3.92	6.86
26.35- 26.55	1	3	.98	2.94
26.15- 26.35	1	2	.98	1.96
25.95- 26.15	0	1	0.00	.98
25.75- 25.95	1	1	.98	.98

6H GLABELLA TO WALL				
RANGES	FRQ	CUMF	FRQ%	CUMF%
21.65- 21.75	1	102	.98	100.00
21.55- 21.65	0	101	0.00	99.02
21.45- 21.55	1	101	.98	99.02
21.35- 21.45	0	100	0.00	98.04
21.25- 21.35	0	100	0.00	98.04
21.15- 21.25	0	100	0.00	98.04
21.05- 21.15	0	100	0.00	98.04
20.95- 21.05	3	100	2.94	98.04
20.85- 20.95	2	97	1.96	95.10
20.75- 20.85	2	95	1.96	93.14
20.65- 20.75	2	93	1.96	91.18
20.55- 20.65	0	91	0.00	89.22
20.45- 20.55	3	91	2.94	89.22
20.35- 20.45	2	88	1.96	86.27
20.25- 20.35	1	86	.98	84.31
20.15- 20.25	4	85	3.92	83.33
20.05- 20.15	2	81	1.96	79.41
19.95- 20.05	1	79	.98	77.45
19.85- 19.95	3	78	2.94	76.47
19.75- 19.85	8	75	7.84	73.53
19.65- 19.75	8	67	7.84	65.69
19.55- 19.65	8	59	7.84	57.84
19.45- 19.55	8	51	7.84	50.00
19.35- 19.45	9	43	8.82	42.16
19.25- 19.35	4	34	3.92	33.33
19.15- 19.25	8	30	7.84	29.41
19.05- 19.15	6	22	5.88	21.57
18.95- 19.05	1	16	.98	15.69
18.85- 18.95	3	15	2.94	14.71
18.75- 18.85	2	12	1.96	11.76
18.65- 18.75	1	10	.98	9.80
18.55- 18.65	0	9	0.00	8.82
18.45- 18.55	4	9	3.92	8.82
18.35- 18.45	1	5	.98	4.90
18.25- 18.35	1	4	.98	3.92
18.15- 18.25	1	3	.98	2.94
18.05- 18.15	1	2	.98	1.96
17.95- 18.05	0	1	0.00	.98
17.85- 17.95	1	1	.98	.98

FREQUENCY TABLES FOR HEAD AND FACE MEASUREMENTS

7H SELLION TO WALL					8H PRONASALE TO WALL				
RANGES	FRQ	CUMF	FRQ%	CUMF%	RANGES	FRQ	CUMF	FRQ%	CUMF%
21.55- 21.65	1	102	.98	100.00	24.25- 24.35	1	102	.98	100.00
21.45- 21.55	1	101	.98	99.02	24.15- 24.25	0	101	0.00	99.02
21.35- 21.45	0	100	0.00	98.04	24.05- 24.15	0	101	0.00	99.02
21.25- 21.35	0	100	0.00	98.04	23.95- 24.05	0	101	0.00	99.02
21.15- 21.25	0	100	0.00	98.04	23.85- 23.95	1	101	.98	99.02
21.05- 21.15	1	100	.98	98.04	23.75- 23.85	0	100	0.00	98.04
20.95- 21.05	0	99	0.00	97.06	23.65- 23.75	2	100	1.96	98.04
20.85- 20.95	1	99	.98	97.06	23.55- 23.65	0	98	0.00	96.08
20.75- 20.85	1	98	.96	96.08	23.45- 23.55	0	98	0.00	96.08
20.65- 20.75	1	97	.98	95.10	23.35- 23.45	1	98	.98	96.08
20.55- 20.65	2	96	1.96	94.12	23.25- 23.35	2	97	1.96	95.10
20.45- 20.55	1	94	.98	92.16	23.15- 23.25	4	95	3.92	93.14
20.35- 20.45	3	93	2.94	91.18	23.05- 23.15	1	91	.98	89.22
20.25- 20.35	1	90	.98	88.24	22.95- 23.05	6	90	5.88	88.24
20.15- 20.25	2	89	1.96	87.25	22.85- 22.95	3	84	2.94	82.35
20.05- 20.15	1	87	.98	85.29	22.75- 22.85	5	81	4.90	79.41
19.95- 20.05	0	86	5.88	84.31	22.65- 22.75	5	76	4.90	74.51
19.85- 19.95	4	80	3.92	78.43	22.55- 22.65	1	71	.98	69.61
19.75- 19.85	3	76	2.94	74.51	22.45- 22.55	2	70	1.96	68.63
19.65- 19.75	8	73	7.84	71.57	22.35- 22.45	4	68	3.92	66.67
19.55- 19.65	6	65	5.88	63.73	22.25- 22.35	10	64	9.88	62.75
19.45- 19.55	9	59	8.82	57.84	22.15- 22.25	4	54	3.92	52.94
19.35- 19.45	8	50	7.84	49.02	21.95- 22.05	1	50	.98	49.02
19.25- 19.35	8	42	7.84	41.16	21.85- 21.95	6	36	5.88	35.29
19.15- 19.25	6	34	5.88	33.33	21.75- 21.85	5	30	4.90	29.41
19.05- 19.15	2	28	1.96	27.45	21.65- 21.75	1	25	.98	24.51
18.95- 19.05	7	26	6.86	25.49	21.55- 21.65	2	24	1.96	23.53
18.85- 18.95	1	19	.98	18.63	21.45- 21.55	6	22	5.88	21.57
18.75- 18.85	6	18	5.88	17.65	21.35- 21.45	4	16	3.92	15.69
18.65- 18.75	2	12	1.96	11.76	21.25- 21.35	3	12	2.94	11.76
18.55- 18.65	1	10	.98	9.80	21.15- 21.25	3	9	2.94	8.82
18.45- 18.55	2	9	1.96	8.82	21.05- 21.15	0	6	0.00	5.88
18.35- 18.45	2	7	1.96	6.86	20.95- 21.05	1	6	.98	5.88
18.25- 18.35	1	5	.98	4.90	20.85- 20.95	1	5	.98	4.90
18.15- 18.25	1	4	.98	3.92	20.75- 20.85	1	4	.98	3.92
18.05- 18.15	0	3	0.00	2.94	20.65- 20.75	2	3	1.96	2.94
17.95- 18.05	1	3	.98	2.94	20.55- 20.65	0	1	0.00	.98
17.85- 17.95	1	2	.98	1.96	20.45- 20.55	0	1	0.00	.98
17.75- 17.85	0	1	0.00	.98	20.35- 20.45	0	1	0.00	.98
17.65- 17.75	1	1	.98	.98	20.25- 20.35	0	1	0.00	.98
					20.15- 20.25	0	1	0.00	.98
					20.05- 20.15	1	1	.98	.98

FREQUENCY TABLES FOR HEAD AND FACE MEASUREMENTS

9H SUBNASALE TO WALL

RANGES	FRQ	CUMF	FRQ%	CUMF%
23.25- 23.35	1	102	.98	100.00
23.15- 23.25	0	101	0.00	99.02
23.05- 23.15	0	101	0.00	99.02
22.95- 23.05	1	101	.98	99.02
22.85- 22.95	0	100	0.00	98.04
22.75- 22.85	0	100	0.00	98.04
22.65- 22.75	1	100	.98	98.04
22.55- 22.65	0	99	0.00	97.06
22.45- 22.55	0	99	0.00	97.06
22.35- 22.45	0	99	0.00	97.06
22.25- 22.35	3	99	2.94	97.06
22.15- 22.25	1	96	.98	94.12
22.05- 22.15	0	95	0.00	93.14
21.95- 22.05	1	95	.98	93.14
21.85- 21.95	2	94	1.96	92.16
21.75- 21.85	1	92	.98	90.20
21.65- 21.75	2	91	1.96	89.22
21.55- 21.65	5	89	4.90	87.25
21.45- 21.55	5	84	4.90	82.35
21.35- 21.45	3	79	2.94	77.45
21.25- 21.35	2	76	1.96	74.51
21.15- 21.25	5	74	4.90	72.55
21.05- 21.15	5	69	4.90	67.65
20.95- 21.05	5	64	4.90	62.75
20.85- 20.95	7	59	6.86	57.84
20.75- 20.85	4	52	3.92	50.98
20.65- 20.75	7	48	6.86	47.06
20.55- 20.65	8	41	7.84	40.20
20.45- 20.55	5	33	4.90	32.35
20.35- 20.45	5	28	4.90	27.45
20.25- 20.35	2	23	1.96	22.55
20.15- 20.25	3	21	2.94	20.59
20.05- 20.15	4	18	3.92	17.65
19.95- 20.05	3	14	2.94	13.73
19.85- 19.95	3	11	2.94	10.78
19.75- 19.85	0	8	0.00	7.84
19.65- 19.75	0	8	0.00	7.84
19.55- 19.65	4	8	3.92	7.84
19.45- 19.55	0	4	0.00	3.92
19.35- 19.45	1	4	.98	3.92
19.25- 19.35	2	3	1.96	2.94
19.15- 19.25	1	1	.98	.98

10H LIP PROTRUS'N-WALL

RANGES	FRQ	CUMF	FRQ%	CUMF%
23.75- 23.95	1	102	.98	100.00
23.55- 23.75	1	101	.98	99.02
23.35- 23.55	1	100	.98	98.04
23.15- 23.35	0	99	0.00	97.06
22.95- 23.15	1	99	.98	97.06
22.75- 22.95	1	98	.98	96.08
22.55- 22.75	1	97	.98	95.10
22.35- 22.55	2	96	1.96	94.12
22.15- 22.35	3	94	2.94	92.16
21.95- 22.15	3	91	2.94	89.22
21.75- 21.95	5	88	4.90	86.27
21.55- 21.75	5	83	4.90	81.37
21.35- 21.55	7	78	6.86	76.47
21.15- 21.35	6	71	5.88	69.61
21.05- 21.15	10	65	9.80	63.73
20.95- 21.05	12	55	11.76	53.92
20.85- 20.95	7	43	6.86	42.16
20.75- 20.85	3	36	2.94	35.29
20.65- 20.75	7	33	6.86	32.35
20.55- 20.65	8	26	7.84	25.49
20.45- 20.55	6	18	5.88	17.65
20.35- 20.45	5	12	4.90	11.76
20.25- 20.35	4	7	3.92	6.86
20.15- 20.25	0	3	0.00	2.94
20.05- 20.15	2	3	1.96	2.94
19.95- 20.05	1	1	.98	.98

FREQUENCY TABLES FOR HEAD AND FACE MEASUREMENTS

11H MENTON TO WALL				
RANGES	FRQ	CUMF	FRQ%	CUMF%
23.55- 23.75	1	102	.98	100.00
23.35- 23.55	0	101	0.00	99.02
23.15- 23.35	0	101	0.00	99.02
22.95- 23.15	1	101	.98	99.02
22.75- 22.95	0	100	0.00	98.04
22.55- 22.75	1	100	.98	98.04
22.35- 22.55	1	99	.98	97.06
22.15- 22.35	3	98	2.94	96.08
21.95- 22.15	1	95	.98	93.14
21.75- 21.95	2	94	1.96	92.16
21.55- 21.75	3	92	2.94	90.20
21.35- 21.55	1	89	.98	87.25
21.15- 21.35	0	88	0.00	86.27
20.95- 21.15	10	88	9.00	86.27
20.75- 20.95	11	78	10.78	76.47
20.55- 20.75	7	67	6.86	65.69
20.35- 20.55	2	60	1.96	58.82
20.15- 20.35	6	58	5.88	56.86
19.95- 20.15	6	52	5.88	50.98
19.75- 19.95	8	46	7.84	45.10
19.55- 19.75	5	38	4.90	37.25
19.35- 19.55	9	33	8.82	32.35
19.15- 19.35	7	24	6.86	23.53
18.95- 19.15	3	17	2.94	16.67
18.75- 18.95	7	14	6.86	13.73
18.55- 18.75	3	7	2.94	6.86
18.35- 18.55	2	4	1.96	3.92
18.15- 18.35	1	2	.98	1.96
17.95- 18.15	0	1	0.00	.98
17.75- 17.95	0	1	0.00	.98
17.55- 17.75	1	1	.98	.98

12H ECTOCANTHUS-WALL				
RANGES	FRQ	CUMF	FRQ%	CUMF%
19.45- 19.55	2	102	1.96	100.00
19.35- 19.45	0	100	0.00	98.04
19.25- 19.35	0	100	0.00	98.04
19.15- 19.25	0	100	0.00	98.04
19.05- 19.15	2	100	1.96	98.04
18.95- 19.05	4	98	0.00	96.08
18.85- 18.95	2	98	1.96	96.08
18.75- 18.85	2	96	1.96	94.12
18.65- 18.75	1	94	.98	92.16
18.55- 18.65	1	93	.98	91.18
18.45- 18.55	1	92	.98	90.20
18.35- 18.45	1	91	.98	89.22
18.25- 18.35	3	90	2.94	88.24
18.15- 18.25	4	87	3.92	85.29
18.05- 18.15	8	83	7.84	81.37
17.95- 18.05	4	75	3.92	73.53
17.85- 17.95	6	71	5.88	69.61
17.75- 17.85	8	65	7.84	63.73
17.65- 17.75	5	57	4.90	55.88
17.55- 17.65	6	52	5.88	50.98
17.45- 17.55	5	46	4.90	45.10
17.35- 17.45	6	41	5.88	40.20
17.25- 17.35	5	35	4.90	34.31
17.05- 17.15	2	30	1.96	29.41
16.95- 17.05	5	28	4.90	27.45
16.85- 16.95	3	23	2.94	22.55
16.75- 16.85	4	20	3.92	19.61
16.65- 16.75	2	16	1.96	15.69
16.55- 16.65	3	14	2.94	13.73
16.45- 16.55	1	11	.98	10.78
16.35- 16.45	2	10	1.96	9.80
16.25- 16.35	4	8	3.92	7.84
16.15- 16.25	1	4	.98	3.92
16.05- 16.15	0	3	0.00	2.94
15.95- 16.05	1	3	.98	2.94
15.85- 15.95	0	2	0.00	1.96
15.75- 15.85	2	2	1.96	1.96

FREQUENCY TABLES FOR HEAD AND FACE MEASUREMENTS

13H TRAGION TO WALL

RANGES	FRQ	CUMF	FRQ%	CUMF%
11.95- 12.05	1	102	.98	100.00
11.85- 11.95	1	101	.98	99.02
11.75- 11.85	1	100	.98	98.04
11.65- 11.75	1	99	.98	97.06
11.55- 11.65	1	98	.98	96.08
11.45- 11.55	1	97	.98	95.10
11.35- 11.45	3	96	2.94	94.12
11.25- 11.35	3	93	2.94	91.18
11.15- 11.25	2	90	1.96	88.24
11.05- 11.15	2	88	1.96	86.27
10.95- 11.05	3	86	2.94	84.31
10.85- 10.95	1	83	.98	81.37
10.75- 10.85	7	82	6.86	80.39
10.65- 10.75	5	75	4.90	73.53
10.55- 10.65	3	70	2.94	68.63
10.45- 10.55	4	67	3.92	65.69
10.35- 10.45	10	63	9.80	61.76
10.25- 10.35	7	53	6.86	51.96
10.15- 10.25	6	46	5.88	45.10
10.05- 10.15	7	40	6.86	39.22
9.95- 10.05	5	33	4.90	32.35
9.85- 9.95	4	28	3.92	27.45
9.75- 9.85	2	24	1.96	23.53
9.65- 9.75	6	22	5.88	21.57
9.55- 9.65	2	16	1.96	15.69
9.45- 9.55	1	14	.98	13.73
9.35- 9.45	4	13	3.92	12.75
9.25- 9.35	4	9	3.92	8.82
9.15- 9.25	0	>	0.00	4.90
9.05- 9.15	1	5	.98	4.90
8.95- 9.05	1	4	.98	3.92
8.85- 8.95	1	3	.98	2.94
8.75- 8.85	1	2	.98	1.96
8.65- 8.75	0	1	0.00	.98
8.55- 8.65	0	1	0.00	.98
8.45- 8.55	0	1	0.00	.98
8.35- 8.45	0	1	0.00	.98
8.25- 8.35	0	1	0.00	.98
8.15- 8.25	1	1	.98	.98

14H BITRAGION BREADTH

RANGES	FRQ	CUMF	FRQ%	CUMF%
14.85- 14.95	2	102	1.96	100.00
14.75- 14.85	0	100	0.00	98.04
14.65- 14.75	1	100	.98	98.04
14.55- 14.65	1	99	.98	97.06
14.45- 14.55	1	98	.98	96.08
14.35- 14.45	1	97	.98	95.10
14.25- 14.35	3	96	2.94	94.12
14.15- 14.25	5	93	4.90	91.18
14.05- 14.15	2	88	1.96	86.27
13.95- 14.05	8	86	7.84	84.31
13.85- 13.95	8	78	7.84	76.47
13.75- 13.85	4	70	3.92	68.63
13.65- 13.75	8	66	7.84	64.71
13.55- 13.65	3	58	2.94	56.86
13.45- 13.55	10	55	9.80	53.92
13.35- 13.45	7	45	6.86	44.12
13.25- 13.35	3	38	2.94	37.25
13.15- 13.25	7	35	6.86	34.31
13.05- 13.15	5	28	4.90	27.45
12.95- 13.05	4	23	3.92	22.55
12.85- 12.95	4	19	3.92	18.03
12.75- 12.85	2	15	1.96	14.71
12.65- 12.75	4	13	3.92	12.75
12.55- 12.65	2	9	1.96	8.82
12.45- 12.55	4	7	3.92	6.86
12.35- 12.45	1	3	.98	2.94
12.25- 12.35	1	2	.98	1.96
12.15- 12.25	0	1	0.00	.98
12.05- 12.15	1	1	.98	.98

FREQUENCY TABLES FOR HEAD AND FACE MEASUREMENTS

15H HEAD HT/TRAGN-VRTX				
RANGES	FRQ	CUMF	FRQ%	CUMF%
15.35- 15.45	1	102	.98	100.00
15.25- 15.35	0	101	0.00	99.02
15.15- 15.25	0	101	0.00	99.02
15.05- 15.15	1	101	.98	99.02
14.95- 15.05	0	100	0.00	98.04
14.85- 14.95	0	100	0.00	98.04
14.75- 14.85	0	100	0.00	98.04
14.65- 14.75	0	100	0.00	98.04
14.55- 14.65	3	100	2.94	98.04
14.45- 14.55	3	97	2.94	95.10
14.35- 14.45	1	94	.98	92.16
14.25- 14.35	1	93	.98	91.18
14.15- 14.25	1	92	.98	90.20
14.05- 14.15	1	91	.98	89.22
13.95- 14.05	5	90	4.90	88.24
13.85- 13.95	5	85	4.90	83.33
13.75- 13.85	7	80	6.86	78.43
13.65- 13.75	6	73	5.88	71.57
13.55- 13.65	5	67	4.90	65.69
13.45- 13.55	10	62	9.80	60.78
13.35- 13.45	3	52	2.94	50.98
13.25- 13.35	9	49	8.82	48.04
13.15- 13.25	4	40	3.92	39.22
13.05- 13.15	5	36	4.90	35.29
12.95- 13.05	9	31	8.82	30.39
12.85- 12.95	4	22	3.92	21.57
12.75- 12.85	5	18	4.90	17.65
12.65- 12.75	0	13	0.00	12.75
12.55- 12.65	0	13	0.00	12.75
12.45- 12.55	2	13	1.96	12.75
12.35- 12.45	1	11	.98	10.78
12.25- 12.35	5	10	4.90	9.80
12.15- 12.25	2	5	1.96	4.90
12.05- 12.15	0	3	0.00	2.94
11.95- 12.05	1	3	.98	2.94
11.85- 11.95	1	2	.98	1.96
11.75- 11.85	0	1	0.00	.98
11.65- 11.75	0	1	0.00	.98
11.55- 11.65	0	1	0.00	.98
11.45- 11.55	1	1	.98	.98

16H ECTOCANTHUS-VERTEX				
RANGES	FRQ	CUMF	FRQ%	CUMF%
13.25- 13.35	1	102	.98	100.00
13.15- 13.25	0	101	0.00	99.02
13.05- 13.15	0	101	0.00	99.02
12.95- 13.05	1	101	.98	99.02
12.85- 12.95	0	100	0.00	98.04
12.75- 12.85	1	100	.98	98.04
12.65- 12.75	1	99	.98	97.06
12.55- 12.65	0	98	0.00	96.08
12.45- 12.55	0	98	0.00	96.08
12.35- 12.45	2	98	1.96	96.08
12.25- 12.35	1	96	.98	94.12
12.15- 12.25	1	95	.98	93.14
12.05- 12.15	1	94	.98	92.16
11.95- 12.05	2	93	1.96	91.18
11.85- 11.95	2	91	1.96	89.22
11.75- 11.85	2	89	1.96	87.25
11.65- 11.75	9	87	8.82	85.29
11.55- 11.65	5	78	4.90	76.47
11.45- 11.55	3	73	2.94	71.57
11.35- 11.45	6	70	5.88	68.63
11.25- 11.35	3	64	2.94	62.75
11.15- 11.25	2	61	1.96	59.80
11.05- 11.15	1	59	.98	57.84
10.95- 11.05	6	58	5.88	56.86
10.85- 10.95	9	52	8.82	50.98
10.75- 10.85	4	43	3.92	42.16
10.65- 10.75	7	39	6.86	38.24
10.55- 10.65	3	32	2.94	31.37
10.45- 10.55	7	29	6.86	28.43
10.35- 10.45	3	22	2.94	21.57
10.25- 10.35	6	19	5.88	18.03
10.15- 10.25	1	13	.98	12.75
10.05- 10.15	1	12	.98	11.76
9.95- 10.05	1	11	.98	10.78
9.85- 9.95	4	10	3.92	9.80
9.75- 9.85	1	6	.98	5.88
9.65- 9.75	3	5	2.94	4.90
9.55- 9.65	0	2	0.00	1.96
9.45- 9.55	1	2	.98	1.96
9.35- 9.45	0	1	0.00	.98
9.25- 9.35	0	1	0.00	.98
9.15- 9.25	0	1	0.00	.98
9.05- 9.15	0	1	0.00	.98
8.95- 9.05	1	1	.98	.98
8.85- 8.95	1	1	.98	.98

FREQUENCY TABLES FOR HEAD AND FACE MEASUREMENTS

17H GLABELLA TO VERTEX					18H SELLION TO VERTEX						
RANGES	FRQ	CUMF	FRQ%	CUMF%	RANGES	FRQ	CUMF	FRQ%	CUMF%		
9.75-	9.85	1	102	.98	100.00	12.45-	12.55	1	102	.98	100.00
9.65-	9.75	1	101	.98	99.02	12.35-	12.45	0	101	0.00	99.02
9.55-	9.65	0	100	0.00	98.04	12.25-	12.35	0	101	0.00	99.02
9.45-	9.55	0	100	0.00	98.04	12.15-	12.25	0	101	0.00	99.02
9.35-	9.45	3	100	2.94	98.04	12.05-	12.15	0	101	0.00	99.02
9.25-	9.35	2	97	1.96	95.10	11.95-	12.05	0	101	0.00	99.02
9.15-	9.25	3	95	2.94	93.14	11.85-	11.95	0	101	0.00	99.02
9.05-	9.15	0	92	0.00	90.20	11.75-	11.85	1	101	.98	99.02
8.95-	9.05	2	92	1.96	90.20	11.65-	11.75	1	100	.98	98.04
8.85-	8.95	4	90	3.92	88.24	11.55-	11.65	0	99	0.00	97.06
8.75-	8.85	2	86	1.96	84.31	11.45-	11.55	1	99	.98	97.06
8.65-	8.75	6	84	5.88	82.35	11.35-	11.45	1	98	.98	96.08
8.55-	8.65	2	78	1.96	76.47	11.25-	11.35	1	97	.98	95.10
8.45-	8.55	2	76	1.96	74.51	11.15-	11.25	2	96	1.96	94.12
8.35-	8.45	5	74	4.90	72.55	11.05-	11.15	1	94	.98	92.16
8.25-	8.35	3	69	2.94	67.65	10.95-	11.05	2	93	1.96	91.18
8.15-	8.25	2	66	1.96	64.71	10.85-	10.95	0	91	0.00	89.22
8.05-	8.15	3	64	2.94	62.75	10.75-	10.85	5	91	4.90	89.22
7.95-	8.05	9	61	8.82	59.80	10.65-	10.75	0	86	0.00	84.31
7.85-	7.95	4	52	3.92	50.98	10.55-	10.65	5	86	4.90	84.31
7.75-	7.85	4	48	3.92	47.06	10.45-	10.55	0	81	0.00	79.41
7.65-	7.75	2	44	1.96	43.14	10.35-	10.45	4	81	3.92	79.41
7.55-	7.65	6	42	5.88	41.18	10.25-	10.35	3	77	2.94	75.49
7.45-	7.55	2	36	1.96	35.29	10.15-	10.25	1	74	.98	72.55
7.35-	7.45	5	34	4.90	33.33	10.05-	10.15	3	73	2.94	71.57
7.25-	7.35	4	29	3.92	28.43	9.95-	10.05	8	70	7.84	68.63
7.15-	7.25	3	25	2.94	24.51	9.85-	9.95	9	62	8.82	60.78
7.05-	7.15	2	22	1.96	21.57	9.75-	9.85	1	53	.98	51.96
6.95-	7.05	4	20	3.92	19.61	9.65-	9.75	4	52	3.92	50.98
6.85-	6.95	5	16	4.90	15.69	9.55-	9.65	3	48	2.94	47.06
6.75-	6.85	2	11	1.96	10.78	9.45-	9.55	0	45	0.00	44.12
6.65-	6.75	2	9	1.96	8.82	9.35-	9.45	3	45	2.94	44.12
6.55-	6.65	1	7	.98	6.86	9.25-	9.35	6	42	5.88	41.18
6.45-	6.55	?	6	1.96	5.88	9.15-	9.25	1	36	.98	35.29
6.35-	6.45	3	4	2.94	3.92	9.05-	9.15	3	35	2.94	34.31
6.25-	6.35	0	1	0.00	.98	8.95-	9.05	5	32	4.90	31.37
6.15-	6.25	0	1	0.00	.98	8.85-	8.95	1	27	.98	26.47
6.05-	6.15	0	1	0.00	.98	8.75-	8.85	3	26	2.94	25.49
5.95-	6.05	0	1	0.00	.98	8.65-	8.75	5	23	4.90	22.55
5.85-	5.95	1	1	.98	.98	8.55-	8.65	1	18	.98	17.65
						8.45-	8.55	3	17	2.94	16.67
						8.35-	8.45	2	14	1.96	13.73
						8.25-	8.35	3	12	2.94	11.76
						8.15-	8.25	4	9	3.92	8.82
						8.05-	8.15	1	5	.98	4.90
						7.95-	8.05	2	4	1.96	3.92
						7.85-	7.95	1	2	.98	1.96
						7.75-	7.85	1	1	.98	.98

FREQUENCY TABLES FOR HEAD AND FACE MEASUREMENTS

19H PRONASALE TO VERTX

RANGES	FRQ	CUMF	FRQ%	CUMF%
16.15- 16.35	1	102	.98	100.00
15.95- 16.15	0	101	0.00	99.02
15.75- 15.95	0	101	0.00	99.02
15.55- 15.75	1	101	.98	99.02
15.35- 15.55	1	100	.98	98.04
15.15- 15.35	1	99	.98	97.06
14.95- 15.15	2	98	1.96	96.08
14.75- 14.95	2	96	1.96	94.12
14.55- 14.75	4	94	3.92	92.16
14.35- 14.55	1	90	.98	88.24
14.15- 14.35	7	89	6.86	87.25
13.95- 14.15	2	82	1.96	80.39
13.75- 13.95	5	80	4.90	78.43
13.55- 13.75	7	75	6.86	73.53
13.35- 13.55	5	68	4.90	66.67
13.15- 13.35	7	63	6.86	61.76
12.95- 13.15	10	56	9.80	54.90
12.75- 12.95	7	46	6.86	45.10
12.55- 12.75	4	39	3.92	38.24
12.35- 12.55	11	35	10.76	34.31
12.15- 12.35	6	24	5.88	23.53
11.95- 12.15	4	18	3.92	17.65
11.75- 11.95	7	14	6.86	13.73
11.55- 11.75	2	7	1.96	6.86
11.35- 11.55	2	5	1.96	4.90
11.15- 11.35	2	3	1.96	2.94
10.95- 11.15	0	1	0.00	.98
10.75- 10.95	1	1	.98	.98

20H SUBNASALE TO VERTX

RANGES	FRQ	CUMF	FRQ%	CUMF%
17.15- 17.35	1	102	.98	100.00
16.95- 17.15	0	101	0.00	99.02
16.75- 16.95	0	101	0.00	99.02
16.55- 16.75	0	101	0.00	99.02
16.35- 16.55	2	101	1.96	99.02
16.15- 16.35	2	99	1.96	97.06
15.95- 16.15	1	97	.98	95.10
15.75- 15.95	5	96	4.90	94.12
15.55- 15.75	4	91	3.92	89.22
15.35- 15.55	7	87	6.86	85.29
15.15- 15.35	5	80	4.90	78.43
14.95- 15.15	3	75	2.94	73.53
14.75- 14.95	8	72	7.84	70.59
14.55- 14.75	8	64	7.84	62.75
14.35- 14.55	10	56	9.80	54.90
14.15- 14.35	8	40	7.84	45.10
13.95- 14.15	6	38	5.88	37.25
13.75- 13.95	7	32	6.86	31.37
13.55- 13.75	7	25	6.86	24.51
13.35- 13.55	4	18	3.92	17.65
13.15- 13.35	8	14	7.84	13.73
12.95- 13.15	2	6	1.96	5.88
12.75- 12.95	2	4	1.96	3.92
12.55- 12.75	0	2	0.00	1.96
12.35- 12.55	1	2	.98	1.96
12.15- 12.35	1	1	.98	.98

FREQUENCY TABLES FOR HEAD AND FACE MEASUREMENTS

21H STOMION TO VERTEX				
RANGES	FRQ	CUMF	FRQ%	CUMF%
19.35- 19.55	1	102	.98	100.00
19.15- 19.35	0	101	0.00	99.02
18.95- 19.15	1	101	.98	99.02
18.75- 18.95	3	100	2.94	98.04
18.55- 18.75	1	97	.98	95.10
18.35- 18.55	4	96	3.92	94.12
18.15- 18.35	1	92	.98	90.20
17.95- 18.15	4	91	3.92	89.22
17.75- 17.95	6	87	5.88	85.29
17.55- 17.75	4	81	3.92	79.41
17.35- 17.55	5	77	4.90	75.49
17.15- 17.35	8	72	7.84	70.59
16.95- 17.15	8	64	7.84	62.75
16.75- 16.95	4	56	3.92	54.90
16.55- 16.75	8	52	7.84	50.98
16.35- 16.55	9	44	8.82	43.14
16.15- 16.35	11	35	10.78	34.31
15.95- 16.15	7	24	6.86	23.53
15.75- 15.95	4	17	3.92	16.67
15.55- 15.75	5	13	4.90	12.75
15.35- 15.55	3	8	2.94	7.84
15.15- 15.35	2	5	1.96	4.90
14.95- 15.15	1	3	.98	2.94
14.75- 14.95	1	2	.98	1.96
14.55- 14.75	0	1	0.00	.98
14.35- 14.55	1	1	.98	.98

22H MENTON TO VERTEX				
RANGES	FRQ	CUMF	FRQ%	CUMF%
23.95- 24.15	1	102	.98	100.00
23.75- 23.95	1	101	.98	99.02
23.55- 23.75	0	100	0.00	98.04
23.35- 23.55	3	100	2.94	98.04
23.15- 23.35	0	97	0.00	95.10
22.95- 23.15	3	97	2.94	95.10
22.75- 22.95	2	94	1.96	92.16
22.55- 22.75	2	92	1.96	90.20
22.35- 22.55	4	90	3.92	88.24
22.15- 22.35	4	86	3.92	84.31
21.95- 22.15	7	82	6.86	80.39
21.75- 21.95	4	75	3.92	73.53
21.55- 21.75	4	71	3.92	69.61
21.35- 21.55	13	67	12.75	65.69
21.15- 21.35	12	54	11.76	52.94
20.95- 21.15	4	42	3.92	41.18
20.75- 20.95	5	38	4.90	37.25
20.55- 20.75	9	33	8.82	32.35
20.35- 20.55	5	24	4.90	23.53
20.15- 20.35	8	19	7.84	18.63
19.95- 20.15	5	11	4.90	10.78
19.75- 19.95	4	6	3.92	5.88
19.55- 19.75	0	2	0.00	1.96
19.35- 19.55	0	2	0.00	1.96
19.15- 19.35	1	2	.98	.98
18.95- 19.15	1	1	.98	.98

FREQUENCY TABLES FOR HEAD AND FACE MEASUREMENTS

23H CRINION-MENTON									
RANGES	FRQ	CUMF	FRQ%	CUMF%					
13.15- 13.25	1	102	.98	100.00	20.65- 20.75	1	102	.98	100.00
13.05- 13.15	1	101	.98	99.02	20.55- 20.65	1	101	.98	99.02
12.95- 13.05	2	100	1.96	98.04	20.45- 20.55	0	100	1.00	98.04
12.85- 12.95	2	98	1.96	96.08	20.35- 20.45	1	100	.98	98.04
12.75- 12.85	3	96	2.94	94.12	20.25- 20.35	1	99	.98	97.06
12.65- 12.75	1	93	.98	91.18	20.15- 20.25	0	98	0.00	96.08
12.55- 12.65	2	92	1.96	90.20	20.05- 20.15	0	98	0.00	96.08
12.45- 12.55	5	90	4.90	88.24	19.95- 20.05	0	98	1.00	96.08
12.35- 12.45	2	85	1.96	83.33	19.85- 19.95	0	98	0.00	96.08
12.25- 12.35	3	83	2.94	81.37	19.75- 19.85	2	98	1.96	96.08
12.15- 12.25	3	80	2.94	78.43	19.65- 19.75	1	94	.98	92.16
12.05- 12.15	3	77	2.94	75.49	19.55- 19.65	3	93	2.94	91.18
11.95- 12.05	8	74	7.84	72.55	19.45- 19.55	4	90	3.92	88.24
11.85- 11.95	5	66	4.90	64.71	19.35- 19.45	4	86	3.92	84.31
11.75- 11.85	6	61	5.88	59.80	19.25- 19.35	2	82	1.96	80.39
11.65- 11.75	5	55	4.90	53.92	19.05- 19.15	4	80	3.92	78.43
11.55- 11.65	9	50	8.82	49.02	18.95- 19.05	6	76	5.88	74.51
11.45- 11.55	4	41	3.92	40.20	18.85- 18.95	4	70	3.92	68.63
11.35- 11.45	4	37	3.92	36.27	18.75- 18.85	5	66	4.90	64.71
11.25- 11.35	6	33	5.88	32.35	18.65- 18.75	5	61	4.90	59.80
11.15- 11.25	4	27	3.92	26.47	18.55- 18.65	4	56	3.92	54.90
11.05- 11.15	7	23	6.86	22.55	18.45- 18.55	2	52	1.96	50.98
10.95- 11.05	6	16	5.88	15.69	18.35- 18.45	11	50	10.78	49.02
10.85- 10.95	1	10	.98	9.80	18.25- 18.35	4	39	3.92	38.24
10.75- 10.85	0	9	0.00	8.82	18.15- 18.25	4	35	3.92	34.31
10.65- 10.75	2	9	1.96	8.82	18.05- 18.15	5	31	4.90	30.39
10.55- 10.65	1	7	.98	6.86	17.95- 18.05	4	26	3.92	25.49
10.45- 10.55	1	6	.98	5.88	17.85- 17.95	3	22	2.94	21.57
10.35- 10.45	4	5	3.92	4.90	17.75- 17.85	1	19	.98	18.63
10.25- 10.35	0	1	0.00	.98	17.65- 17.75	0	18	0.00	17.65
10.15- 10.25	1	1	.98	.98	17.55- 17.65	3	18	2.94	17.65
					17.45- 17.55	3	15	2.94	14.71
					17.35- 17.45	4	12	3.92	11.76
					17.25- 17.35	0	8	0.00	7.84
					17.15- 17.25	1	8	.98	7.84
					17.05- 17.15	2	7	1.96	6.86
					16.95- 17.05	0	5	0.00	4.90
					16.85- 16.95	1	5	.98	4.90
					16.75- 16.85	1	4	.98	3.92
					16.65- 16.75	1	3	.98	2.94
					16.55- 16.65	1	2	.98	1.96
					16.45- 16.55	1	1	.98	.98

FREQUENCY TABLES FOR HEAD AND FACE MEASUREMENTS

25H MINIMUM FRONTAL BR

RANGES	FRQ	CUMF	FRQ%	CUMF%
12.65- 12.75	1	102	.98	100.00
12.55- 12.65	0	101	0.00	99.02
12.45- 12.55	2	101	1.96	99.02
12.35- 12.45	2	99	1.96	97.06
12.25- 12.35	3	97	2.94	95.10
12.15- 12.25	3	94	2.94	92.16
12.05- 12.15	6	91	5.88	89.22
11.95- 12.05	5	85	4.90	83.33
11.85- 11.95	2	80	1.96	78.43
11.75- 11.85	2	78	1.96	76.47
11.65- 11.75	2	76	1.96	74.51
11.55- 11.65	6	74	5.88	72.55
11.45- 11.55	6	68	5.88	66.67
11.35- 11.45	3	62	2.94	60.78
11.25- 11.35	5	59	4.90	57.84
11.15- 11.25	3	54	2.94	52.94
11.05- 11.15	1	51	.98	50.00
10.95- 11.05	7	50	6.86	49.02
10.85- 10.95	3	43	2.94	42.16
10.75- 10.85	5	40	4.90	39.22
10.65- 10.75	7	35	6.86	34.31
10.55- 10.65	1	28	.98	27.45
10.45- 10.55	4	27	3.92	26.47
10.35- 10.45	4	23	3.92	22.55
10.25- 10.35	1	19	.98	18.63
10.15- 10.25	4	18	3.92	17.65
10.05- 10.15	4	14	3.92	13.73
9.95- 10.05	4	10	3.92	9.80
9.85- 9.95	1	6	.98	5.88
9.75- 9.85	1	5	.98	4.90
9.65- 9.75	0	4	0.00	3.92
9.55- 9.65	1	4	.98	3.92
9.45- 9.55	2	3	1.96	2.94
9.35- 9.45	0	1	0.00	.98
9.25- 9.35	0	1	0.00	.98
9.15- 9.25	1	1	.98	.98

26H FACE B/BIZYGMATIC

RANGES	FRQ	CUMF	FRQ%	CUMF%
14.75- 14.85	1	102	.98	100.00
14.65- 14.75	2	101	1.96	99.02
14.55- 14.65	1	99	.98	97.06
14.45- 14.55	8	98	7.84	96.08
14.35- 14.45	1	90	.98	88.24
14.25- 14.35	4	89	3.92	87.25
14.15- 14.25	5	85	4.90	83.33
14.05- 14.15	6	80	5.88	78.43
13.95- 14.05	12	74	11.76	72.55
13.85- 13.95	9	62	8.82	60.78
13.75- 13.85	7	53	6.86	51.96
13.65- 13.75	8	46	7.84	45.10
13.55- 13.65	4	38	3.92	37.25
13.45- 13.55	7	34	6.86	33.33
13.35- 13.45	6	27	5.88	26.47
13.25- 13.35	4	21	3.92	20.59
13.15- 13.25	3	17	2.94	16.67
13.05- 13.15	4	14	3.92	13.73
12.95- 13.05	1	10	.98	9.80
12.85- 12.95	1	9	.98	8.82
12.75- 12.85	2	8	1.96	7.84
12.65- 12.75	2	6	1.96	5.88
12.55- 12.65	3	4	2.94	3.92
12.45- 12.55	1	1	.98	.98

FREQUENCY TABLES FOR HEAD AND FACE MEASUREMENTS

27H BILOCULAR BREADTH				
RANGES	FRQ	CUMF	FRQ%	CUMF%
11.35- 11.45	1	102	.98	100.00
11.25- 11.35	0	101	0.00	99.02
11.15- 11.25	1	101	.96	99.02
11.05- 11.15	1	100	.98	98.04
10.95- 11.05	0	99	0.00	97.06
10.85- 10.95	4	99	3.92	97.06
10.75- 10.85	5	95	4.90	93.14
10.65- 10.75	1	90	.98	88.24
10.55- 10.65	6	89	5.88	87.25
10.45- 10.55	5	83	4.90	81.37
10.35- 10.45	6	78	5.88	76.47
10.25- 10.35	8	72	7.84	70.59
10.15- 10.25	10	64	9.80	62.75
10.05- 10.15	11	54	10.78	52.94
9.95- 10.05	7	43	6.86	42.16
9.85- 9.95	11	36	10.78	35.29
9.75- 9.85	8	25	7.84	24.51
9.65- 9.75	2	17	1.96	16.67
9.55- 9.65	3	15	2.94	14.71
9.45- 9.55	2	12	1.96	11.76
9.35- 9.45	1	10	.98	9.80
9.25- 9.35	1	9	.98	8.82
9.15- 9.25	4	8	3.92	7.84
9.05- 9.15	3	4	2.94	3.92
8.95- 9.05	0	1	0.00	.98
8.85- 8.95	0	1	0.00	.98
8.75- 8.85	0	1	0.00	.98
8.65- 8.75	1	1	.98	.98

28H INTERPUPILLARY DIS				
RANGES	FRQ	CUMF	FRQ%	CUMF%
7.25- 7.35	1	102	.98	100.00
7.15- 7.25	0	101	0.00	99.02
7.05- 7.15	1	101	.98	99.02
6.95- 7.05	0	100	0.00	98.04
6.85- 6.95	0	100	0.00	98.04
6.75- 6.85	2	100	1.96	98.04
6.65- 6.75	1	98	.98	96.08
6.55- 6.65	1	97	.98	95.10
6.45- 6.55	4	96	3.92	94.12
6.35- 6.45	7	92	6.06	90.20
6.25- 6.35	6	85	5.88	83.33
6.15- 6.25	10	79	9.80	77.45
6.05- 6.15	6	69	5.88	67.65
5.95- 6.05	8	63	7.84	61.76
5.85- 5.95	9	55	8.82	53.92
5.75- 5.85	7	46	6.86	45.10
5.65- 5.75	6	39	5.88	38.24
5.55- 5.65	5	33	4.90	32.35
5.45- 5.55	11	28	10.78	27.45
5.35- 5.45	3	17	2.94	16.67
5.25- 5.35	6	14	5.88	13.73
5.15- 5.25	4	8	3.92	7.84
5.05- 5.15	1	4	.98	3.92
4.95- 5.05	0	3	0.00	2.94
4.85- 4.95	0	3	0.00	2.94
4.75- 4.85	1	3	.98	2.94
4.65- 4.75	2	2	1.96	1.96

FREQUENCY TABLES FOR HEAD AND FACE MEASUREMENTS

29H NOSE LENGTH					30H NOSE BREADTH						
RANGES	FRQ	CUMF	FRQ%	CUMF%	RANGES	FRQ	CUMF	FRQ%	CUMF%		
5.75-	5.85	3	102	2.94	100.00	4.75-	4.85	2	102	1.96	100.00
5.65-	5.75	2	99	1.96	97.06	4.65-	4.75	2	100	1.96	98.04
5.55-	5.65	1	97	.98	95.10	4.55-	4.65	0	98	0.00	96.08
5.45-	5.55	4	96	3.92	94.12	4.45-	4.55	4	98	3.92	96.08
5.35-	5.45	7	92	6.86	90.20	4.35-	4.45	4	94	3.92	92.16
5.25-	5.35	9	85	8.82	83.33	4.25-	4.35	6	90	5.88	88.24
5.15-	5.25	3	76	2.94	74.51	4.15-	4.25	3	84	2.94	82.35
5.05-	5.15	14	73	13.73	71.57	4.05-	4.15	9	81	6.82	79.41
4.95-	5.05	7	59	6.86	57.84	3.95-	4.05	4	72	3.92	70.59
4.85-	4.95	8	52	7.84	50.98	3.85-	3.95	3	68	2.94	66.67
4.75-	4.85	12	44	11.76	43.14	3.75-	3.85	7	65	6.86	63.73
4.65-	4.75	14	32	13.73	31.37	3.65-	3.75	7	58	6.86	56.86
4.55-	4.65	7	18	6.86	17.65	3.55-	3.65	6	51	5.88	50.00
4.45-	4.55	5	11	4.90	10.78	3.45-	3.55	10	45	9.88	44.12
4.35-	4.45	4	6	3.92	5.88	3.35-	3.45	7	35	6.86	34.31
4.25-	4.35	1	2	.98	1.96	3.25-	3.35	12	28	11.76	27.45
4.15-	4.25	1	1	.98	.98	3.15-	3.25	5	16	4.90	15.69
						3.05-	3.15	7	11	6.86	10.78
						2.95-	3.05	2	4	1.96	3.92
						2.85-	2.95	1	2	.98	1.96
						2.75-	2.85	1	1	.98	.98

FREQUENCY TABLES FOR HEAD AND FACE MEASUREMENTS

31H MOUTH BRTH/SMILING					
RANGES	FRQ	CUMF	FRQ%	CUMF%	
8.05-	8.15	1	102	.98	100.00
7.95-	8.05	2	101	1.96	99.02
7.85-	7.95	1	99	.98	97.06
7.75-	7.85	1	98	.98	96.08
7.65-	7.75	2	97	1.96	95.10
7.55-	7.65	2	95	1.96	93.14
7.45-	7.55	0	93	0.00	91.18
7.35-	7.45	3	93	2.94	91.18
7.25-	7.35	3	90	2.94	88.24
7.15-	7.25	5	87	4.90	85.29
7.05-	7.15	3	82	2.94	80.39
6.95-	7.05	5	79	4.90	77.45
6.85-	6.95	5	74	4.90	72.55
6.75-	6.85	3	69	2.94	67.65
6.65-	6.75	3	66	2.94	64.71
6.55-	6.65	5	63	4.90	61.76
6.45-	6.55	4	58	3.92	56.86
6.35-	6.45	8	54	7.84	52.94
6.25-	6.35	5	46	4.90	45.10
6.15-	6.25	4	41	3.92	40.20
6.05-	6.15	5	37	4.90	36.27
5.95-	6.05	4	32	3.92	31.37
5.85-	5.95	7	28	6.86	27.45
5.75-	5.85	2	21	1.96	20.59
5.65-	5.75	7	19	6.86	18.63
5.55-	5.65	2	12	1.96	11.76
5.45-	5.55	2	10	1.96	9.80
5.35-	5.45	2	8	1.96	7.84
5.25-	5.35	3	6	2.94	5.88
5.15-	5.25	2	3	1.96	2.94
5.05-	5.15	1	1	.98	.98

32H EAR LENGTH					
RANGES	FRQ	CUMF	FRQ%	CUMF%	
7.15-	7.25	2	102	1.96	100.00
7.05-	7.15	3	100	2.94	98.04
6.95-	7.05	1	97	.98	95.10
6.85-	6.95	2	96	1.96	94.12
6.75-	6.85	2	94	1.96	92.16
6.65-	6.75	4	92	3.92	90.20
6.55-	6.65	6	88	5.88	86.27
6.45-	6.55	7	82	6.86	80.39
6.35-	6.45	10	75	9.80	73.53
6.25-	6.35	11	65	10.78	63.73
6.15-	6.25	14	54	13.73	52.94
6.05-	6.15	12	40	11.76	39.22
5.95-	6.05	5	28	4.90	27.45
5.85-	5.95	4	23	3.92	22.55
5.75-	5.85	4	19	3.92	18.63
5.65-	5.75	5	15	4.90	14.71
5.55-	5.65	3	10	2.94	9.80
5.45-	5.55	2	7	1.96	6.86
5.35-	5.45	2	5	1.96	4.90
5.25-	5.35	0	3	0.00	2.94
5.15-	5.25	0	3	0.00	2.94
5.05-	5.15	2	3	1.96	2.94
4.95-	5.05	0	1	0.00	.98
4.85-	4.95	1	1	.98	.98

FREQUENCY TABLES FOR HEAD AND FACE MEASUREMENTS

34H BIAURICULAR BR					
RANGES	FRQ	CUMF	FRQ%	CUMF%	
20.05-	20.15	1	102	.98	100.00
19.95-	20.05	1	101	.98	99.02
19.85-	19.95	1	100	.98	98.04
19.75-	19.85	0	99	0.00	97.06
19.65-	19.75	1	99	.98	97.06
19.55-	19.65	1	98	.98	96.08
19.45-	19.55	0	97	0.00	95.10
19.35-	19.45	0	97	0.00	95.10
19.25-	19.35	0	97	0.00	95.10
19.15-	19.25	1	97	.98	95.10
19.05-	19.15	1	96	.98	94.12
18.95-	19.05	6	95	5.88	93.14
18.85-	18.95	0	89	0.00	87.25
18.75-	18.85	2	69	1.96	87.25
18.65-	18.75	4	87	3.92	85.29
18.55-	18.65	2	83	1.96	81.37
18.45-	18.55	6	81	5.88	79.41
18.35-	18.45	3	75	2.94	73.53
18.25-	18.35	3	72	2.94	70.59
18.15-	18.25	6	69	5.88	67.65
18.05-	18.15	2	63	1.96	61.76
17.95-	18.05	4	61	3.92	59.80
17.85-	17.95	2	57	1.96	55.88
17.75-	17.85	7	55	6.86	53.92
17.65-	17.75	6	48	5.88	47.06
17.55-	17.65	3	42	2.94	41.18
17.45-	17.55	8	39	7.84	38.24
17.35-	17.45	4	31	3.92	30.39
17.25-	17.35	3	27	2.94	26.47
17.15-	17.25	4	24	3.92	23.53
17.05-	17.15	3	20	2.94	19.61
16.95-	17.05	4	17	3.92	16.67
16.85-	16.95	1	13	.98	12.75
16.75-	16.85	2	12	1.96	11.76
16.65-	16.75	2	10	1.96	9.80
16.55-	16.65	2	8	1.96	7.84
16.45-	16.55	2	6	1.96	5.88
16.35-	16.45	0	4	0.00	3.92
16.25-	16.35	1	4	.98	3.92
16.15-	16.25	1	3	.98	2.94
16.05-	16.15	0	2	0.00	1.96
15.95-	16.05	1	2	.98	1.96
15.85-	15.95	0	1	0.00	.98
15.75-	15.85	0	1	0.00	.98
15.65-	15.75	1	1	.98	.98

FREQUENCY TABLES FOR HEAD AND FACE MEASUREMENTS

54C HEAD CIRCUMFERENCE					
RANGES	FRQ	CUMF	FRQ%	CUMF%	
59.95- 60.15	1	102	.98	100.00	
59.75- 59.95	0	101	0.00	99.02	
59.55- 59.75	0	101	0.00	99.02	
59.35- 59.55	1	101	.98	99.02	
59.15- 59.35	0	100	0.00	98.04	
58.95- 59.15	0	100	0.00	98.04	
58.75- 58.95	2	100	1.96	98.04	
58.55- 58.75	0	98	0.00	96.08	
58.35- 58.55	2	98	1.96	96.08	
58.15- 58.35	3	96	2.94	94.12	
57.95- 58.15	1	93	.98	91.18	
57.75- 57.95	2	92	1.96	90.20	
57.55- 57.75	4	90	3.92	88.24	
57.35- 57.55	3	86	2.94	84.31	
57.15- 57.35	2	83	1.96	81.37	
56.95- 57.15	2	81	1.96	79.41	
56.75- 56.95	3	79	2.94	77.45	
56.55- 56.75	5	76	4.90	74.51	
56.35- 56.55	6	71	5.88	69.61	
56.15- 56.35	4	65	3.92	63.73	
55.95- 56.15	7	61	6.86	59.80	
55.75- 55.95	3	54	2.94	52.94	
55.55- 55.75	6	51	5.88	50.00	
55.35- 55.55	8	45	7.84	44.12	
55.15- 55.35	6	37	5.88	36.27	
54.95- 55.15	3	31	2.94	30.39	
54.75- 54.95	4	28	3.92	27.45	
54.55- 54.75	5	24	4.90	23.53	
54.35- 54.55	3	19	2.94	18.63	
54.15- 54.35	5	16	4.90	15.69	
53.95- 54.15	3	11	2.94	10.78	
53.75- 53.95	0	8	0.00	7.84	
53.55- 53.75	0	8	0.00	7.84	
53.35- 53.55	0	8	0.00	7.84	
53.15- 53.35	3	8	2.94	7.84	
52.95- 53.15	2	5	1.96	4.90	
52.75- 52.95	0	3	0.00	2.94	
52.55- 52.75	1	3	.98	2.94	
52.35- 52.55	1	2	.98	1.96	
52.15- 52.35	1	1	.98	.98	

55C HEAD BREADTH					
RANGES	FRQ	CUMF	FRQ%	CUMF%	
15.85- 15.95	1	102	.98	100.00	
15.75- 15.85	1	101	.98	99.02	
15.65- 15.75	6	100	5.08	98.04	
15.55- 15.65	7	94	0.06	92.16	
15.45- 15.55	0	87	5.88	85.29	
15.35- 15.45	4	81	3.92	79.41	
15.25- 15.35	6	77	5.80	72.49	
15.15- 15.25	9	71	8.82	69.61	
15.05- 15.15	9	62	8.82	60.78	
14.95- 15.05	7	53	6.86	51.90	
14.85- 14.95	6	40	5.08	45.10	
14.75- 14.85	0	40	5.88	39.22	
14.65- 14.75	8	34	7.84	33.33	
14.55- 14.65	5	26	4.90	25.49	
14.45- 14.55	4	21	3.92	20.59	
14.35- 14.45	4	17	3.92	16.67	
14.25- 14.35	2	10	1.96	12.75	
14.15- 14.25	3	11	2.94	10.78	
14.05- 14.15	6	8	5.88	7.84	
13.95- 14.05	1	2	.98	1.96	
13.85- 13.95	1	1	.98	.98	

FREQUENCY TABLES FOR HEAD AND FACE MEASUREMENTS

56C HEAD LENGTH					
RANGES	FRQ	CUMF	FRQ%	CUMF%	
21.25- 21.35	1	132	.98	100.00	
21.15- 21.25	0	101	0.00	99.02	
21.05- 21.15	0	101	0.00	99.02	
20.95- 21.05	1	101	.98	99.02	
20.85- 20.95	1	100	.98	98.04	
20.75- 20.85	2	99	1.96	97.06	
20.65- 20.75	1	97	.98	95.10	
20.55- 20.65	2	96	1.96	94.12	
20.45- 20.55	0	94	0.00	92.16	
20.35- 20.45	4	94	3.92	92.16	
20.25- 20.35	3	90	2.94	88.24	
20.15- 20.25	1	87	.98	85.29	
20.05- 20.15	3	86	2.94	84.31	
19.95- 20.05	2	83	1.96	81.37	
19.85- 19.95	3	81	2.94	79.41	
19.75- 19.85	3	78	2.94	76.47	
19.65- 19.75	4	75	3.92	73.53	
19.55- 19.65	8	71	7.84	69.61	
19.45- 19.55	7	63	6.86	61.76	
19.35- 19.45	9	56	6.82	54.90	
19.25- 19.35	11	47	10.78	46.08	
19.15- 19.25	11	36	10.78	35.29	
19.05- 19.15	7	25	6.86	24.51	
18.95- 19.05	5	18	4.90	17.65	
18.85- 18.95	1	13	.98	12.75	
18.75- 18.85	3	12	2.94	11.76	
18.65- 18.75	1	9	.98	8.82	
18.55- 18.65	1	8	.98	7.84	
18.45- 18.55	0	7	0.00	6.86	
18.35- 18.45	1	7	.98	6.86	
18.25- 18.35	2	6	1.96	5.88	
18.15- 18.25	0	4	0.00	3.92	
18.05- 18.15	3	4	2.94	3.92	
17.95- 18.05	0	1	0.00	.98	
17.85- 17.95	0	1	0.00	.98	
17.75- 17.85	0	1	0.00	.98	
17.65- 17.75	0	1	0.00	.98	
17.55- 17.65	1	1	.98	.98	

B-4. FREQUENCY TABLES FOR THE STATIC STRENGTH SUBSERIES  
(IN POUNDS)

1S STRNGTH/2H 38CM M1					2S STRNGTH/2H 38CM M2				
RANGES	FRQ	CUMF	FRQ%	CUMF%	RANGES	FRQ	CUMF	FRQ%	CUMF%
344.75-349.75	1	102	.98	100.00	339.75-344.75	1	102	.98	100.00
339.75-344.75	0	101	0.00	99.02	334.75-339.75	0	101	0.00	99.02
334.75-339.75	0	101	0.00	99.02	329.75-334.75	0	101	0.00	99.02
329.75-334.75	0	101	0.00	99.02	324.75-329.75	0	101	0.00	99.02
324.75-329.75	1	101	.98	99.02	319.75-324.75	3	101	2.94	99.02
319.75-324.75	0	100	0.00	98.04	314.75-319.75	0	98	0.00	96.08
314.75-319.75	1	100	.98	98.04	309.75-314.75	1	98	.98	96.08
309.75-314.75	0	99	0.00	97.06	304.75-309.75	0	97	0.00	95.10
304.75-309.75	2	99	1.96	97.06	299.75-304.75	2	97	1.96	95.10
299.75-304.75	2	97	1.96	95.10	294.75-299.75	2	95	1.96	93.14
294.75-299.75	1	95	.98	93.14	289.75-294.75	1	93	.98	91.18
289.75-294.75	2	94	1.96	92.16	284.75-289.75	0	92	0.00	90.20
284.75-289.75	1	92	.98	90.20	279.75-284.75	1	92	.98	90.20
279.75-284.75	1	91	.98	89.22	274.75-279.75	2	91	1.96	89.22
274.75-279.75	3	90	2.94	88.24	269.75-274.75	2	89	1.96	87.25
269.75-274.75	4	87	3.92	85.29	264.75-269.75	3	87	2.94	85.29
264.75-269.75	2	83	1.96	81.37	259.75-264.75	5	84	4.90	82.35
259.75-264.75	2	81	1.96	79.41	254.75-259.75	1	79	.98	77.45
254.75-259.75	6	79	5.88	77.45	249.75-254.75	6	78	7.84	76.47
249.75-254.75	6	73	5.88	71.57	244.75-249.75	2	70	1.96	68.63
244.75-249.75	3	67	2.94	65.69	239.75-244.75	9	68	8.82	66.67
239.75-244.75	2	64	1.96	62.75	234.75-239.75	2	59	1.96	57.84
234.75-239.75	5	62	4.90	60.78	229.75-234.75	3	57	2.94	55.88
229.75-234.75	4	57	3.92	55.88	224.75-229.75	4	54	3.92	52.94
224.75-229.75	2	53	1.96	51.96	219.75-224.75	4	50	3.92	49.02
219.75-224.75	3	51	2.94	50.00	214.75-219.75	6	46	5.88	45.10
214.75-219.75	5	48	4.90	47.06	209.75-214.75	5	40	4.90	39.22
209.75-214.75	5	43	4.90	42.16	204.75-209.75	5	35	4.90	34.31
204.75-209.75	2	38	1.96	37.25	199.75-204.75	4	30	3.92	29.41
199.75-204.75	3	36	2.94	35.29	194.75-199.75	3	26	2.94	25.49
194.75-199.75	5	33	4.90	32.35	189.75-194.75	5	23	4.90	22.55
189.75-194.75	4	28	3.92	27.45	184.75-189.75	3	18	2.94	17.65
184.75-189.75	1	24	.98	23.53	179.75-184.75	0	15	0.00	14.71
179.75-184.75	6	23	5.88	22.55	174.75-179.75	6	15	5.88	14.71
174.75-179.75	2	17	1.96	16.67	169.75-174.75	0	9	0.00	8.82
169.75-174.75	3	15	2.94	14.71	164.75-169.75	1	9	.98	8.82
164.75-169.75	0	12	0.00	11.76	159.75-164.75	5	8	4.90	7.84
159.75-164.75	4	12	3.92	11.76	154.75-159.75	1	3	.98	2.94
154.75-159.75	3	8	2.94	7.84	149.75-154.75	1	2	.98	1.96
149.75-154.75	2	5	1.96	4.90	144.75-149.75	1	1	.98	.98
144.75-149.75	2	3	1.96	2.94	139.75-144.75	1	1	.98	.98

FREQUENCY TABLES FOR MEN'S STATIC STRENGTH MEASUREMENTS  
(IN POUNDS)

3S STRNGTH/2H 38CM P1						4S STRNGTH/2H 38CM P2					
RANGES	FRQ	CUMF	FRQ%	CUMF%		RANGES	FRQ	CUMF	FRQ%	CUMF%	
354.75-359.75	1	102	.98	100.00		354.75-359.75	1	102	.98	100.00	
349.75-354.75	0	101	0.00	99.02		349.75-354.75	0	101	0.00	99.02	
344.75-349.75	1	101	.98	99.02		344.75-349.75	1	101	.98	99.02	
339.75-344.75	0	100	0.00	98.04		339.75-344.75	2	100	1.96	98.04	
334.75-339.75	0	100	0.00	98.04		334.75-339.75	0	98	0.00	96.00	
329.75-334.75	0	100	0.00	98.04		329.75-334.75	1	98	.98	96.00	
324.75-329.75	4	100	3.92	98.04		324.75-329.75	1	97	.98	95.10	
319.75-324.75	0	96	0.00	94.12		319.75-324.75	0	96	0.00	94.12	
314.75-319.75	2	96	1.96	94.12		314.75-319.75	1	96	.98	94.12	
309.75-314.75	1	94	.98	92.16		309.75-314.75	2	95	1.96	93.14	
304.75-309.75	5	93	4.90	91.18		304.75-309.75	0	93	0.00	91.18	
299.75-304.75	0	88	0.00	86.27		299.75-304.75	3	93	2.94	91.18	
294.75-299.75	4	88	3.92	86.27		294.75-299.75	1	90	.98	88.24	
289.75-294.75	1	84	.98	82.35		289.75-294.75	3	89	2.94	87.25	
284.75-289.75	1	83	.98	81.37		284.75-289.75	1	86	.98	84.31	
279.75-284.75	5	82	4.90	80.39		279.75-284.75	2	85	1.96	83.33	
274.75-279.75	2	77	1.96	75.49		274.75-279.75	4	83	3.92	81.37	
269.75-274.75	3	75	2.94	73.53		269.75-274.75	4	79	3.92	77.45	
264.75-269.75	4	72	3.92	70.59		264.75-269.75	9	75	8.82	73.53	
259.75-264.75	5	68	4.90	66.67		259.75-264.75	4	66	3.92	64.71	
254.75-259.75	6	63	5.88	61.76		254.75-259.75	11	62	10.78	60.78	
249.75-254.75	2	57	1.96	55.88		249.75-254.75	3	51	2.94	50.00	
244.75-249.75	5	55	4.90	53.92		244.75-249.75	5	48	4.90	47.06	
239.75-244.75	1	50	.98	49.02		239.75-244.75	1	43	.98	42.16	
234.75-239.75	4	49	3.92	48.04		234.75-239.75	8	42	7.84	41.18	
229.75-234.75	2	45	1.96	44.12		229.75-234.75	2	34	1.96	33.33	
224.75-229.75	4	43	3.92	42.16		224.75-229.75	6	32	5.88	31.37	
219.75-224.75	2	39	1.96	38.24		219.75-224.75	3	26	2.94	25.49	
214.75-219.75	4	37	3.92	36.27		214.75-219.75	2	23	1.96	22.55	
209.75-214.75	8	33	7.84	32.35		209.75-214.75	4	21	3.92	20.59	
204.75-209.75	4	25	3.92	24.51		204.75-209.75	3	17	2.94	16.67	
199.75-204.75	2	21	1.96	20.59		199.75-204.75	4	14	3.92	13.73	
194.75-199.75	5	19	4.90	18.63		194.75-199.75	4	10	3.92	9.80	
189.75-194.75	4	14	3.92	13.73		189.75-194.75	2	6	1.96	5.08	
184.75-189.75	1	10	.98	9.80		184.75-189.75	0	4	0.00	3.92	
179.75-184.75	2	9	1.96	8.82		179.75-184.75	1	4	.98	3.92	
174.75-179.75	2	7	1.96	6.86		174.75-179.75	1	3	.98	2.94	
169.75-174.75	1	5	.98	4.90		169.75-174.75	1	2	.98	1.96	
164.75-169.75	1	4	.98	3.92		164.75-169.75	1	1	.98	.98	
159.75-164.75	1	3	.98	2.94							
154.75-159.75	2	2	1.96	1.96							

FREQUENCY TABLES FOR MEN'S STATIC STRENGTH MEASUREMENTS  
(IN POUNDS)

55 STRNGTH/2H 50CM M1				65 STRNGTH/2H 50CM M2				
RANGES	FRQ	CUMF	FRQ%	RANGES	FRQ	CUMF	FRQ% CUMF%	
319.75-324.75	2	102	1.96	160.00	334.75-339.75	1	102	.98 100.00
314.75-319.75	1	100	.98	98.04	329.75-334.75	0	101	0.00 99.02
309.75-314.75	0	99	0.00	97.06	324.75-329.75	2	101	1.96 99.02
304.75-309.75	2	99	1.96	97.06	319.75-324.75	0	99	0.00 97.06
299.75-304.75	1	97	.98	95.10	314.75-319.75	1	99	.98 97.06
294.75-299.75	1	96	.98	94.12	309.75-314.75	0	98	0.00 96.08
289.75-294.75	1	95	.98	93.14	304.75-309.75	2	98	1.96 96.08
284.75-289.75	1	94	.98	92.16	299.75-304.75	1	96	.98 94.12
279.75-284.75	1	93	.98	91.18	289.75-294.75	0	95	0.00 93.14
274.75-279.75	1	92	.98	90.20	284.75-289.75	2	95	1.96 93.14
269.75-274.75	1	91	.98	89.22	279.75-284.75	0	93	0.00 91.18
264.75-269.75	4	90	3.92	88.24	274.75-279.75	3	93	2.94 91.18
259.75-264.75	2	80	1.96	84.31	269.75-274.75	3	90	2.94 88.24
254.75-259.75	3	84	2.94	82.35	264.75-269.75	2	87	1.96 85.29
249.75-254.75	2	81	1.96	79.41	259.75-264.75	1	85	.98 83.33
244.75-249.75	5	79	4.90	77.45	254.75-259.75	3	84	2.94 82.35
239.75-244.75	6	74	5.88	72.55	249.75-254.75	5	81	4.90 79.41
234.75-239.75	9	68	8.82	66.67	244.75-249.75	4	76	3.92 74.51
229.75-234.75	2	59	1.96	57.84	239.75-244.75	8	72	7.84 70.59
224.75-229.75	6	57	5.88	55.88	234.75-239.75	5	64	4.90 62.75
219.75-224.75	3	51	2.94	50.00	229.75-234.75	2	59	1.96 57.84
214.75-219.75	6	48	5.88	47.06	224.75-229.75	6	57	5.88 55.88
209.75-214.75	5	42	4.90	41.18	219.75-224.75	4	51	3.92 50.00
204.75-209.75	3	37	2.94	36.27	214.75-219.75	6	47	5.88 46.08
199.75-204.75	3	34	2.94	33.33	209.75-214.75	6	41	5.88 40.20
194.75-199.75	6	31	5.88	30.39	204.75-209.75	5	35	4.90 34.31
189.75-194.75	5	25	4.90	24.51	199.75-204.75	6	30	5.88 29.41
184.75-189.75	3	20	2.94	19.61	194.75-199.75	3	24	2.94 23.53
179.75-184.75	3	17	2.94	16.67	189.75-194.75	1	21	.98 20.59
174.75-179.75	3	14	2.94	13.73	184.75-189.75	5	20	4.90 19.61
169.75-174.75	3	11	2.94	10.78	179.75-184.75	3	15	2.94 14.71
164.75-169.75	1	8	.98	7.84	174.75-179.75	3	12	2.94 11.76
159.75-164.75	3	7	2.94	6.86	169.75-174.75	3	9	2.94 8.82
154.75-159.75	2	4	1.96	3.92	164.75-169.75	3	6	2.94 5.88
149.75-154.75	1	2	.98	1.96	159.75-164.75	2	3	1.96 2.94
144.75-149.75	1	1	.98	.98	154.75-159.75	1	1	.98 .98

FREQUENCY TABLES FOR MEN'S STATIC STRENGTH MEASUREMENTS  
(IN POUNDS)

75 STRNGTH/2H 50CM P1					85 STRNGTH/2H 50CM P2				
RANGES	FRQ	CUMF	FRQ%	CUMF%	RANGES	FRQ	CUMF	FRQ%	CUMF%
359.75-364.75	1	102	.98	100.00	364.75-369.75	1	102	.98	100.00
354.75-359.75	0	101	0.00	99.02	359.75-364.75	0	101	0.00	99.02
349.75-354.75	0	101	0.00	99.02	349.75-359.75	0	101	0.00	99.02
344.75-349.75	0	101	0.00	99.02	344.75-349.75	1	101	.98	99.02
339.75-344.75	4	101	3.92	99.02	339.75-344.75	0	100	0.00	98.04
334.75-339.75	0	97	0.00	95.10	334.75-339.75	0	100	0.00	98.04
329.75-334.75	0	97	0.00	95.10	329.75-334.75	2	99	1.96	97.06
324.75-329.75	2	97	1.96	95.10	324.75-329.75	0	97	0.00	95.10
319.75-324.75	1	95	.98	93.14	319.75-324.75	1	97	.98	95.10
314.75-319.75	0	94	0.00	92.16	314.75-319.75	2	96	1.96	94.12
309.75-314.75	0	94	0.00	92.16	309.75-314.75	2	94	1.96	92.16
304.75-309.75	1	94	.98	92.16	304.75-309.75	0	92	0.00	90.20
299.75-304.75	4	93	3.92	91.18	299.75-304.75	2	92	1.96	90.20
294.75-299.75	2	89	1.96	87.25	289.75-294.75	4	90	3.92	88.24
289.75-294.75	2	87	1.96	85.29	289.75-294.75	2	86	1.96	84.31
284.75-289.75	2	85	1.96	83.33	284.75-289.75	0	84	0.00	82.35
279.75-284.75	0	83	0.00	81.37	279.75-284.75	5	84	4.90	82.35
274.75-279.75	4	83	3.92	81.37	274.75-279.75	1	79	.98	77.45
269.75-274.75	2	79	1.96	77.45	269.75-274.75	0	78	0.00	76.47
264.75-269.75	6	77	5.88	75.49	264.75-269.75	7	78	6.86	76.47
259.75-264.75	5	71	4.90	69.61	259.75-264.75	6	71	5.88	69.61
254.75-259.75	6	66	5.88	64.71	254.75-259.75	5	65	4.90	63.73
249.75-254.75	6	60	5.88	58.82	249.75-254.75	2	60	1.96	58.82
244.75-249.75	5	54	4.90	52.94	244.75-249.75	10	58	9.80	56.86
239.75-244.75	3	49	2.94	48.04	239.75-244.75	4	48	3.92	47.06
234.75-239.75	5	46	4.90	45.10	234.75-239.75	6	44	5.88	43.14
229.75-234.75	5	41	4.90	40.20	229.75-234.75	1	38	.98	37.25
224.75-229.75	4	36	3.92	35.29	224.75-229.75	3	37	2.94	36.27
219.75-224.75	1	32	.98	31.37	219.75-224.75	6	34	5.88	33.33
214.75-219.75	3	31	2.94	30.39	214.75-219.75	10	28	9.80	27.45
209.75-214.75	7	28	6.86	27.45	209.75-214.75	1	18	.98	17.65
204.75-209.75	7	21	6.86	20.59	204.75-209.75	2	17	1.96	16.67
199.75-204.75	3	14	2.94	13.73	199.75-204.75	0	15	0.00	14.71
194.75-199.75	0	11	0.00	10.78	194.75-199.75	5	15	4.90	14.71
189.75-194.75	4	11	3.92	10.78	189.75-194.75	3	10	2.94	9.80
184.75-189.75	0	7	0.00	6.86	184.75-189.75	2	7	1.96	6.86
179.75-184.75	1	7	.98	6.86	179.75-184.75	2	5	1.96	4.90
174.75-179.75	2	6	1.96	5.88	174.75-179.75	2	3	1.96	2.94
169.75-174.75	2	4	1.96	3.92	169.75-174.75	1	1	.98	.98
164.75-169.75	1	2	.98	1.96					
159.75-164.75	0	1	0.00	.98					
154.75-159.75	1	1	.98	.98					

FREQUENCY TABLES FOR MEN'S STATIC STRENGTH MEASUREMENTS  
(IN POUNDS)

9S STRNGTH/2H 100CM M1					10S STRNGTH/2H 100CM M2				
RANGES	FRQ	CUMF	FRQ%	CUMF%	RANGES	FRQ	CUMF	FRQ%	CUMF%
244.75-249.75	1	102	.98	100.00	244.75-249.75	1	102	.98	100.00
239.75-244.75	0	101	0.00	99.02	239.75-244.75	0	101	0.00	99.02
234.75-239.75	0	101	0.00	99.02	234.75-239.75	1	101	.98	99.02
229.75-234.75	0	101	0.00	99.02	229.75-234.75	0	100	0.00	98.04
224.75-229.75	0	101	0.00	99.02	224.75-229.75	0	100	0.00	98.04
219.75-224.75	0	101	0.00	99.02	219.75-224.75	0	100	0.00	98.04
214.75-219.75	0	101	0.00	99.02	214.75-219.75	1	100	.98	98.04
209.75-214.75	4	101	3.92	99.02	209.75-214.75	1	99	.98	97.06
204.75-209.75	1	97	.98	95.10	204.75-209.75	1	98	.98	96.08
199.75-204.75	1	96	.98	94.12	199.75-204.75	2	97	1.96	95.10
194.75-199.75	4	95	3.92	93.14	194.75-199.75	3	95	2.94	93.14
189.75-194.75	2	91	1.96	89.22	189.75-194.75	1	92	.98	90.20
184.75-189.75	1	89	.98	87.25	184.75-189.75	1	91	.98	89.22
179.75-184.75	3	88	2.94	86.27	179.75-184.75	1	90	.98	88.24
174.75-179.75	3	85	2.94	83.33	174.75-179.75	4	89	3.92	87.25
169.75-174.75	3	82	2.94	80.39	169.75-174.75	7	85	6.86	83.33
164.75-169.75	8	79	7.84	77.45	164.75-169.75	4	78	3.92	76.47
159.75-164.75	1	71	.98	69.61	159.75-164.75	4	74	3.92	72.55
154.75-159.75	5	70	4.90	68.63	154.75-159.75	5	70	4.90	68.63
149.75-154.75	6	65	5.88	63.73	149.75-154.75	6	65	5.88	63.73
144.75-149.75	3	59	2.94	57.84	144.75-149.75	4	59	3.92	57.84
139.75-144.75	3	56	2.94	54.90	139.75-144.75	6	55	5.88	53.92
134.75-139.75	8	53	7.84	51.96	134.75-139.75	4	49	3.92	48.04
129.75-134.75	13	45	12.75	44.12	129.75-134.75	9	45	8.82	44.12
124.75-129.75	9	32	8.82	31.37	124.75-129.75	4	36	3.92	35.29
119.75-124.75	4	23	3.92	22.55	119.75-124.75	8	32	7.84	31.37
114.75-119.75	4	19	3.92	18.63	114.75-119.75	5	24	4.90	23.53
109.75-114.75	3	15	2.94	14.71	109.75-114.75	9	19	8.82	18.63
104.75-109.75	2	12	1.96	11.76	104.75-109.75	3	10	2.94	9.80
99.75-104.75	5	10	4.90	9.80	99.75-104.75	0	7	0.00	6.86
94.75- 99.75	3	5	2.94	4.90	94.75- 99.75	3	7	2.94	6.86
89.75- 94.75	0	2	0.00	1.96	89.75- 94.75	1	4	.98	3.92
84.75- 89.75	2	2	1.96	1.96	84.75- 89.75	0	3	0.00	2.94
					79.75- 84.75	3	3	2.94	2.94

FREQUENCY TABLES FOR MEN'S STATIC STRENGTH MEASUREMENTS  
(IN POUNDS)

115 STRNGTH/2H 100CM P1					125 STRNGTH/2H 100CM P2				
RANGES	FRQ	CUMF	FRQ%	CUMF%	RANGES	FRQ	CUMF	FRQ%	CUMF%
254.75-259.75	1	102	.98	100.00	254.75-259.75	1	102	.98	100.00
249.75-254.75	0	101	0.00	99.02	249.75-254.75	1	101	.98	99.02
244.75-249.75	0	101	0.00	99.02	244.75-249.75	0	100	0.00	98.04
239.75-244.75	0	101	0.00	99.02	239.75-244.75	0	100	0.00	98.04
234.75-239.75	0	101	0.00	99.02	234.75-239.75	1	100	.98	98.04
229.75-234.75	1	101	.98	99.02	229.75-234.75	0	99	0.00	97.06
224.75-229.75	0	100	0.00	98.04	224.75-229.75	1	99	.98	97.06
219.75-224.75	4	100	3.92	98.04	219.75-224.75	0	98	0.00	96.08
214.75-219.75	1	96	.98	94.12	214.75-219.75	1	98	.98	96.08
209.75-214.75	3	95	2.94	93.14	209.75-214.75	6	97	5.88	95.10
204.75-209.75	1	92	.98	90.20	204.75-209.75	2	91	1.96	89.22
199.75-204.75	2	91	1.96	89.22	199.75-204.75	3	89	2.94	87.25
194.75-199.75	3	89	2.94	87.25	194.75-199.75	1	86	.98	84.31
189.75-194.75	4	86	3.92	84.31	189.75-194.75	2	85	1.96	83.33
184.75-189.75	5	82	4.90	80.39	184.75-189.75	6	83	5.88	81.37
179.75-184.75	4	77	3.92	75.49	179.75-184.75	4	77	3.92	75.49
174.75-179.75	2	73	1.96	71.57	174.75-179.75	6	73	5.88	71.57
169.75-174.75	6	71	5.88	69.61	169.75-174.75	2	67	1.96	65.69
164.75-169.75	6	65	5.88	63.73	164.75-169.75	3	65	2.94	63.73
159.75-164.75	3	59	2.94	57.84	159.75-164.75	4	62	3.92	60.78
154.75-159.75	2	56	1.96	54.90	154.75-159.75	9	58	8.82	56.86
149.75-154.75	5	54	4.90	52.94	149.75-154.75	5	49	4.90	48.04
144.75-149.75	8	49	7.84	48.04	144.75-149.75	3	44	2.94	43.14
139.75-144.75	9	41	8.82	40.20	139.75-144.75	3	41	2.94	40.20
134.75-139.75	6	32	5.88	31.37	134.75-139.75	10	38	9.80	37.25
129.75-134.75	6	26	5.88	25.49	129.75-134.75	6	28	5.88	27.45
124.75-129.75	7	20	6.06	19.61	124.75-129.75	7	22	6.86	21.57
119.75-124.75	4	13	3.92	12.75	119.75-124.75	5	15	4.90	14.71
114.75-119.75	3	9	2.94	8.82	114.75-119.75	2	10	1.96	9.80
109.75-114.75	3	6	2.94	5.88	109.75-114.75	2	8	1.96	7.84
104.75-109.75	1	3	.98	2.94	104.75-109.75	2	6	1.96	5.88
99.75-104.75	1	2	.98	1.96	99.75-104.75	1	4	.98	3.92
94.75- 99.75	0	1	0.00	.98	94.75- 99.75	1	3	.98	2.94
89.75- 94.75	1	1	.98	.98	89.75- 94.75	2	2	1.96	1.96

FREQUENCY TABLES FOR MEN'S STATIC STRENGTH MEASUREMENTS  
(IN POUNDS)

13S STRNGTH/2H 150CM M1					14S STRNGTH/2H 150CM M2				
RANGES	FRQ	CUMF	FRQ%	CUMF%	RANGES	FRQ	CUMF	FRQ%	CUMF%
259.75-264.75	1	102	.98	100.00	319.75-327.75	1	102	.98	100.00
254.75-259.75	0	101	0.00	99.02	311.75-319.75	0	101	0.00	99.02
249.75-254.75	0	101	0.00	99.02	303.75-311.75	0	101	0.00	99.02
244.75-249.75	0	101	0.00	99.02	295.75-303.75	0	101	0.00	99.02
239.75-244.75	0	101	0.00	99.02	287.75-295.75	0	101	0.00	99.02
234.75-239.75	1	101	.98	99.02	279.75-287.75	0	101	0.00	99.02
229.75-234.75	2	100	1.96	98.04	271.75-279.75	0	101	0.00	99.02
224.75-229.75	0	98	0.00	96.08	263.75-271.75	0	101	0.00	99.02
219.75-224.75	3	98	2.94	96.08	255.75-263.75	1	101	.98	99.02
214.75-219.75	1	95	.98	93.14	247.75-255.75	0	100	0.00	98.04
209.75-214.75	0	94	0.00	92.16	239.75-247.75	1	100	.98	98.04
204.75-209.75	0	94	0.00	92.16	231.75-239.75	2	99	1.96	97.06
199.75-204.75	4	94	3.92	92.16	223.75-231.75	1	97	.98	95.10
194.75-199.75	0	90	0.00	88.24	215.75-223.75	2	96	1.96	94.12
189.75-194.75	3	90	2.94	88.24	207.75-215.75	2	94	1.96	92.16
184.75-189.75	4	87	3.92	85.29	199.75-207.75	2	92	1.96	90.20
179.75-184.75	3	83	2.94	81.37	191.75-199.75	5	90	4.90	88.24
174.75-179.75	5	80	4.90	78.43	183.75-191.75	5	85	4.90	83.33
169.75-174.75	3	75	2.94	73.53	175.75-183.75	8	80	7.84	78.43
164.75-169.75	1	72	.98	70.59	167.75-175.75	5	72	4.90	70.59
159.75-164.75	3	71	2.94	69.61	159.75-167.75	6	67	5.88	65.69
154.75-159.75	4	68	3.92	66.67	151.75-159.75	6	61	5.88	59.80
149.75-154.75	7	64	6.86	62.75	143.75-151.75	5	55	4.90	53.92
144.75-149.75	5	57	4.90	55.88	135.75-143.75	8	50	7.84	49.02
139.75-144.75	6	52	5.88	50.98	127.75-135.75	7	42	6.86	41.18
134.75-139.75	5	46	4.90	45.10	119.75-127.75	7	35	6.86	34.31
129.75-134.75	4	41	3.92	40.20	111.75-119.75	8	28	7.84	27.45
124.75-129.75	3	37	2.94	36.27	103.75-111.75	8	20	7.84	19.61
119.75-124.75	8	34	7.84	33.33	95.75-103.75	4	12	3.92	11.76
114.75-119.75	3	26	2.94	25.49	87.75- 95.75	5	8	4.90	7.84
109.75-114.75	5	23	4.90	22.55	79.75- 87.75	1	3	.98	2.94
104.75-109.75	5	18	4.90	17.65	71.75- 79.75	2	2	1.96	1.96
99.75-104.75	5	13	4.90	12.75					
94.75- 99.75	0	8	0.00	7.84					
89.75- 94.75	3	8	2.94	7.84					
84.75- 89.75	2	5	1.96	4.90					
79.75- 84.75	3	3	2.94	2.94					

FREQUENCY TABLES FOR MEN'S STATIC STRENGTH MEASUREMENTS  
(IN POUNDS)

155 STRNGTH/2H 150CM P1				
RANGES	FRQ	CUMF	FRQ%	CUMF%
314.75-319.75	1	102	.98	100.00
309.75-314.75	0	101	0.00	99.02
304.75-309.75	0	101	0.00	99.02
299.75-304.75	0	101	0.00	99.02
294.75-299.75	0	101	0.00	99.02
289.75-294.75	0	101	0.00	99.02
284.75-289.75	0	101	0.00	99.02
279.75-284.75	0	101	0.00	99.02
274.75-279.75	0	101	0.00	99.02
269.75-274.75	0	101	0.00	99.02
264.75-269.75	0	101	0.00	99.02
259.75-264.75	1	101	.98	99.02
254.75-259.75	3	100	2.94	98.04
249.75-254.75	0	97	0.00	95.10
244.75-249.75	0	97	0.00	95.10
239.75-244.75	0	97	0.00	95.10
234.75-239.75	0	97	0.00	95.10
229.75-234.75	1	97	.98	95.10
224.75-229.75	1	96	.98	94.12
219.75-224.75	3	95	2.94	93.14
214.75-219.75	2	92	1.36	90.20
209.75-214.75	2	90	1.96	88.24
204.75-209.75	2	88	1.96	86.27
199.75-204.75	3	86	2.94	84.31
194.75-199.75	3	83	2.94	81.37
189.75-194.75	5	80	4.90	78.43
184.75-189.75	4	75	3.92	73.53
179.75-184.75	6	71	5.88	69.61
174.75-179.75	1	65	.98	63.73
169.75-174.75	1	64	.98	62.75
164.75-169.75	5	63	4.90	61.76
159.75-164.75	3	58	2.94	56.86
154.75-159.75	8	55	7.84	53.92
149.75-154.75	7	47	6.86	46.08
144.75-149.75	5	40	4.90	39.22
139.75-144.75	6	35	5.88	34.31
134.75-139.75	0	29	0.00	28.43
129.75-134.75	5	29	4.90	28.43
124.75-129.75	6	24	5.88	23.53
119.75-124.75	3	18	2.94	17.65
114.75-119.75	6	15	5.88	14.71
109.75-114.75	1	9	.98	8.82
104.75-109.75	4	8	3.92	7.84
99.75-104.75	1	4	.98	3.92
94.75- 99.75	1	3	.98	2.94
89.75- 94.75	2	2	1.96	1.96

165 STRNGTH/2H 150CM P2				
RANGES	FRQ	CUMF	FRQ%	CUMF%
359.75-367.75	1	102	.98	100.00
351.75-359.75	0	101	0.00	99.02
343.75-351.75	0	101	0.00	99.02
335.75-343.75	0	101	0.00	99.02
327.75-335.75	0	101	0.00	99.02
319.75-327.75	0	101	0.00	99.02
311.75-319.75	0	101	0.00	99.02
303.75-311.75	0	101	0.00	99.02
295.75-303.75	0	101	0.00	99.02
287.75-295.75	0	101	0.00	99.02
279.75-287.75	0	101	0.00	99.02
271.75-279.75	1	101	.98	99.02
263.75-271.75	1	100	.98	98.04
255.75-263.75	1	99	.98	97.06
247.75-255.75	1	98	.98	96.08
239.75-247.75	1	97	.98	95.10
231.75-239.75	3	96	2.94	94.12
223.75-231.75	1	93	.98	91.18
215.75-223.75	2	92	1.96	90.20
207.75-215.75	4	90	3.92	88.24
199.75-207.75	6	86	5.88	84.31
191.75-199.75	5	80	4.90	78.43
183.75-191.75	3	75	2.94	73.53
175.75-183.75	9	72	8.82	70.59
167.75-175.75	7	63	6.86	61.76
159.75-167.75	6	56	5.88	54.90
151.75-159.75	7	50	6.86	49.02
143.75-151.75	12	43	11.76	42.16
135.75-143.75	6	31	5.88	30.39
127.75-135.75	4	25	3.92	24.51
119.75-127.75	8	21	7.84	20.59
111.75-119.75	5	13	4.90	12.75
103.75-111.75	4	8	3.92	7.84
95.75-103.75	2	4	1.96	3.92
87.75- 95.75	2	2	1.96	1.96

FREQUENCY TABLES FOR MEN'S STATIC STRENGTH MEASUREMENTS  
(IN POUNDS)

17S STRNGTH/1H 100CM M1				18S STRNGTH/1H 100CM M2					
RANGES	FRQ	CUMF	FRQ%	CUMF%	RANGES	FRQ	CUMF	FRQ%	CUMF%
173.75-176.75	1	102	.98	100.00	173.75-176.75	1	102	.98	100.00
170.75-173.75	1	101	.98	99.02	170.75-173.75	0	101	0.00	99.02
167.75-170.75	0	100	0.00	98.04	167.75-170.75	0	101	0.00	99.02
164.75-167.75	1	100	.98	98.04	164.75-167.75	0	101	0.00	99.02
161.75-164.75	1	99	.98	97.06	161.75-164.75	1	101	.98	99.02
158.75-161.75	1	98	.98	96.08	158.75-161.75	0	100	0.00	98.04
155.75-158.75	0	97	0.00	95.10	155.75-158.75	0	100	0.00	98.04
152.75-155.75	0	97	0.00	95.10	152.75-155.75	1	100	.98	98.04
149.75-152.75	0	97	0.00	95.10	149.75-152.75	2	99	1.96	97.06
146.75-149.75	0	97	0.00	95.10	146.75-149.75	0	97	0.00	95.10
143.75-146.75	0	97	0.00	95.10	143.75-146.75	1	97	.98	95.10
140.75-143.75	0	97	0.00	95.10	140.75-143.75	1	96	.98	94.12
137.75-140.75	3	97	2.94	95.10	137.75-140.75	0	95	0.00	93.14
134.75-137.75	0	94	0.00	92.16	134.75-137.75	0	95	0.00	93.14
131.75-134.75	1	94	.98	92.16	131.75-134.75	1	95	.98	93.14
128.75-131.75	3	93	2.94	91.18	128.75-131.75	0	94	0.00	92.16
125.75-128.75	0	90	0.00	88.24	125.75-128.75	2	94	1.96	92.16
122.75-125.75	0	90	0.00	88.24	122.75-125.75	2	92	1.96	90.20
119.75-122.75	0	90	0.00	88.24	119.75-122.75	2	90	1.96	88.24
116.75-119.75	1	90	.98	88.24	116.75-119.75	3	88	2.94	86.27
113.75-116.75	3	89	2.94	87.25	113.75-116.75	5	85	4.90	83.33
110.75-113.75	6	86	5.88	84.31	110.75-113.75	5	80	4.90	78.43
107.75-110.75	3	80	2.94	78.43	107.75-110.75	4	75	3.92	73.53
104.75-107.75	6	77	5.88	75.49	104.75-107.75	4	71	3.92	69.61
101.75-104.75	2	71	1.96	69.61	101.75-104.75	4	67	3.92	65.69
98.75-101.75	4	69	3.92	67.65	98.75-101.75	5	63	4.90	61.76
95.75-98.75	6	65	5.88	63.73	95.75-98.75	2	58	1.96	56.86
92.75-95.75	6	59	5.88	57.84	92.75-95.75	6	56	5.88	54.90
89.75-92.75	3	53	2.94	51.96	89.75-92.75	5	50	4.90	49.02
86.75-89.75	7	50	6.86	49.02	86.75-89.75	1	45	.98	44.12
83.75-86.75	3	43	2.94	42.16	83.75-86.75	5	44	4.90	43.14
80.75-83.75	6	40	5.88	39.22	80.75-83.75	4	39	3.92	38.24
77.75-80.75	2	34	1.96	33.33	77.75-80.75	1	35	.98	34.31
74.75-77.75	0	32	0.00	31.37	74.75-77.75	7	34	6.86	33.33
71.75-74.75	3	32	2.94	31.37	71.75-74.75	5	27	4.90	26.47
68.75-71.75	6	29	5.88	28.43	68.75-71.75	3	22	2.94	21.57
65.75-68.75	5	23	4.90	22.55	65.75-68.75	3	19	2.94	18.63
62.75-65.75	1	18	.98	17.65	62.75-65.75	1	16	.98	15.69
59.75-62.75	2	17	1.96	16.67	59.75-62.75	1	15	.98	14.71
56.75-59.75	4	15	3.92	14.71	56.75-59.75	2	14	1.96	13.73
53.75-56.75	0	11	0.00	10.78	53.75-56.75	2	12	1.96	11.76
50.75-53.75	4	11	3.92	10.78	50.75-53.75	4	10	3.92	9.80
47.75-50.75	2	7	1.96	6.86	47.75-50.75	0	6	0.00	5.88
44.75-47.75	3	5	2.94	4.90	44.75-47.75	3	6	2.94	5.88
41.75-44.75	2	2	1.96	1.96	41.75-44.75	0	3	0.00	2.94
				38.75-41.75	3	3	2.94		2.94

FREQUENCY TABLES FOR MEN'S STATIC STRENGTH MEASUREMENTS  
(IN POUNDS)

19S STRNGTH/1H 100CM P1					20S STRNGTH/1H 100CM P2				
RANGES	FRQ	CUMF	FRQ%	CUMF%	RANGES	FRQ	CUMF	FRQ%	CUMF%
214.75-219.75	1	102	.98	100.00	214.75-219.75	1	102	.98	100.00
209.75-214.75	0	101	0.00	99.02	209.75-214.75	0	101	0.00	99.02
204.75-209.75	0	101	0.00	99.02	204.75-209.75	0	101	0.00	99.02
199.75-204.75	0	101	0.00	99.02	199.75-204.75	0	101	0.00	99.02
194.75-199.75	0	101	0.00	99.02	194.75-199.75	0	101	0.00	99.02
189.75-194.75	0	101	0.00	99.02	189.75-194.75	0	101	0.00	99.02
184.75-189.75	1	101	.98	99.02	184.75-189.75	1	101	.98	99.02
179.75-184.75	0	100	0.00	98.04	179.75-184.75	0	100	0.00	98.04
174.75-179.75	4	100	3.92	98.04	174.75-179.75	2	100	1.96	98.04
169.75-174.75	1	96	.98	94.12	169.75-174.75	1	98	.98	96.08
164.75-169.75	1	95	.98	93.14	164.75-169.75	0	97	0.00	95.10
159.75-164.75	0	94	0.00	92.16	159.75-164.75	1	97	.98	95.10
154.75-159.75	1	94	.98	92.16	154.75-159.75	0	96	0.00	94.12
149.75-154.75	0	93	0.00	91.18	149.75-154.75	3	96	2.94	94.12
144.75-149.75	2	93	1.96	91.18	144.75-149.75	2	93	1.96	91.18
139.75-144.75	0	91	0.00	89.22	139.75-144.75	1	91	.98	89.22
134.75-139.75	1	91	.98	89.22	134.75-139.75	0	90	0.00	88.24
129.75-134.75	3	90	2.94	88.24	129.75-134.75	7	90	6.86	88.24
124.75-129.75	3	87	2.94	85.29	124.75-129.75	7	83	6.86	81.37
119.75-124.75	8	84	7.84	82.35	119.75-124.75	11	76	10.78	74.51
114.75-119.75	0	76	7.84	74.51	114.75-119.75	6	65	5.88	63.73
109.75-114.75	7	68	6.86	66.67	109.75-114.75	6	59	5.88	57.84
104.75-109.75	8	61	7.84	59.80	104.75-109.75	5	53	4.90	51.96
99.75-104.75	10	53	9.80	51.96	99.75-104.75	5	48	4.90	47.06
94.75- 99.75	5	43	4.90	42.16	94.75- 99.75	8	43	7.84	42.16
89.75- 94.75	7	38	6.86	37.25	89.75- 94.75	9	35	8.82	34.31
84.75- 89.75	4	31	3.92	30.39	84.75- 89.75	5	26	4.90	25.49
79.75- 84.75	5	27	4.90	26.47	79.75- 84.75	4	21	3.92	20.59
74.75- 79.75	5	22	4.90	21.57	74.75- 79.75	3	17	2.94	16.67
69.75- 74.75	2	17	1.96	16.67	69.75- 74.75	2	14	1.96	13.73
64.75- 69.75	2	15	1.96	14.71	64.75- 69.75	1	12	.98	11.76
59.75- 64.75	5	13	4.90	12.75	59.75- 64.75	1	11	.98	10.78
54.75- 59.75	4	8	3.92	7.84	54.75- 59.75	6	10	5.88	9.80
49.75- 54.75	2	4	1.96	3.92	49.75- 54.75	2	4	1.96	3.92
44.75- 49.75	1	2	.98	1.96	44.75- 49.75	2	2	1.96	1.96
39.75- 44.75	1	1	.98	.98					

FREQUENCY TABLES FOR MEN'S STATIC STRENGTH MEASUREMENTS  
(IN POUNDS)

21S STRNGTH/1H 45CM M1 C				22S STRNGTH/1H 45CM M2 C					
RANGES	FRQ	CUMF	FRQ%	RANGES	FRQ	CUMF	FRQ%		
161.75-164.75	1	102	.98	100.00	164.75-167.75	1	102	.98	100.00
158.75-161.75	1	101	.98	99.02	161.75-164.75	0	101	0.00	99.02
155.75-158.75	1	100	.98	98.04	158.75-161.75	0	101	0.00	99.02
152.75-155.75	1	99	.98	97.06	155.75-158.75	1	101	.98	99.02
149.75-152.75	1	98	.98	96.08	152.75-155.75	3	100	2.94	98.04
146.75-149.75	0	97	0.00	95.10	149.75-152.75	1	97	.98	95.10
143.75-146.75	1	97	.98	95.10	146.75-149.75	2	96	1.96	94.12
140.75-143.75	6	96	5.88	94.12	143.75-146.75	2	94	1.96	92.16
137.75-140.75	1	93	.98	88.24	140.75-143.75	5	92	4.90	90.20
134.75-137.75	2	89	1.96	87.25	137.75-140.75	2	87	1.96	85.29
131.75-134.75	4	87	3.92	85.29	134.75-137.75	4	85	3.92	83.33
128.75-131.75	2	83	1.96	81.37	131.75-134.75	5	81	4.90	79.41
125.75-128.75	1	81	.98	79.41	128.75-131.75	1	76	.98	74.51
122.75-125.75	3	80	2.94	78.43	125.75-128.75	4	75	3.92	73.53
119.75-122.75	3	77	2.94	75.49	122.75-125.75	3	71	2.94	69.61
116.75-119.75	3	74	2.94	72.55	119.75-122.75	2	68	1.96	66.67
113.75-116.75	2	71	1.96	69.61	116.75-119.75	1	66	.98	64.71
110.75-113.75	7	69	6.86	67.65	113.75-116.75	7	65	6.86	63.73
107.75-110.75	7	62	6.86	60.78	110.75-113.75	0	58	0.00	56.86
104.75-107.75	3	55	2.94	53.92	107.75-110.75	4	58	3.92	56.86
101.75-104.75	2	52	1.96	50.98	104.75-107.75	7	54	6.86	52.94
98.75-101.75	5	50	4.90	49.02	101.75-104.75	7	47	6.86	46.08
95.75- 98.75	0	45	0.00	44.12	98.75-101.75	2	40	1.96	39.22
92.75- 95.75	2	45	1.96	44.12	95.75- 98.75	1	38	.98	37.25
89.75- 92.75	5	43	4.90	42.16	92.75- 95.75	3	37	2.94	36.27
86.75- 89.75	5	38	4.90	37.25	89.75- 92.75	2	34	1.96	33.33
83.75- 86.75	4	33	3.92	32.35	86.75- 89.75	3	32	2.94	31.37
80.75- 83.75	1	29	.98	28.43	83.75- 86.75	2	29	1.96	28.43
77.75- 80.75	1	28	.98	27.45	80.75- 83.75	0	27	0.00	26.47
74.75- 77.75	2	27	1.96	26.47	77.75- 80.75	2	27	1.96	26.47
71.75- 74.75	2	25	1.96	24.51	74.75- 77.75	4	25	3.92	24.51
68.75- 71.75	1	23	.98	22.55	71.75- 74.75	1	21	.98	20.59
65.75- 68.75	1	22	.98	21.57	68.75- 71.75	2	20	1.96	19.61
62.75- 65.75	6	21	5.88	20.59	65.75- 68.75	0	18	0.00	17.65
59.75- 62.75	4	15	3.92	14.71	62.75- 65.75	4	18	3.92	17.65
56.75- 59.75	2	11	1.96	10.78	59.75- 62.75	2	14	1.96	13.73
53.75- 56.75	2	9	1.96	8.82	56.75- 59.75	3	12	2.94	11.76
50.75- 53.75	1	7	.98	6.86	53.75- 56.75	3	9	2.94	8.82
47.75- 50.75	0	6	0.00	5.88	50.75- 53.75	1	6	.98	5.88
44.75- 47.75	3	6	2.94	5.88	47.75- 50.75	3	5	2.94	4.90
41.75- 44.75	2	3	1.96	2.94	44.75- 47.75	0	2	0.00	1.96
38.75- 41.75	0	1	0.00	.98	41.75- 44.75	1	2	.98	1.96
35.75- 38.75	0	1	0.00	.98	38.75- 41.75	1	1	.98	.98
32.75- 35.75	1	1	.98	.98					

FREQUENCY TABLES FOR MEN'S STATIC STRENGTH MEASUREMENTS  
(IN POUNDS)

23S STRNGTH/1H 45CM P1 C				24S STRNGTH/1H 45CM P2 C				
RANGES	FRQ	CUMF	FRQ%	RANGES	FRQ	CUMF	FRQ%	
173.75-176.75	2	102	1.96	100.00	179.75-182.75	1	102	.98 100.00
170.75-173.75	0	100	0.00	98.04	176.75-179.75	2	101	1.96 99.02
167.75-170.75	1	100	.98	98.04	173.75-176.75	0	99	0.00 97.06
164.75-167.75	2	99	1.96	97.06	170.75-173.75	2	99	1.96 97.06
161.75-164.75	3	97	2.94	95.10	167.75-170.75	1	97	.98 95.10
158.75-161.75	2	94	1.96	92.16	164.75-167.75	3	96	2.94 94.12
155.75-158.75	4	92	3.92	90.20	161.75-164.75	0	93	0.00 91.18
152.75-155.75	0	88	0.00	86.27	158.75-161.75	2	93	1.96 91.18
149.75-152.75	3	88	2.94	86.27	155.75-158.75	2	91	1.96 89.22
146.75-149.75	1	85	.98	83.33	152.75-155.75	3	89	2.94 87.25
143.75-146.75	4	84	3.92	82.35	149.75-152.75	3	86	2.94 84.31
140.75-143.75	2	80	1.96	78.43	146.75-149.75	4	83	3.92 81.37
137.75-140.75	3	78	2.94	76.47	143.75-146.75	3	79	2.94 77.45
134.75-137.75	3	75	2.94	73.53	140.75-143.75	3	76	2.94 74.51
131.75-134.75	1	72	.98	70.59	137.75-140.75	3	73	2.94 71.57
128.75-131.75	4	71	3.92	69.61	134.75-137.75	1	70	.98 68.63
125.75-128.75	5	67	4.90	65.69	131.75-134.75	1	69	.98 67.65
122.75-125.75	4	62	3.92	60.78	128.75-131.75	5	68	4.90 66.67
119.75-122.75	5	58	4.90	56.86	125.75-128.75	3	63	2.94 61.76
116.75-119.75	5	53	4.90	51.96	122.75-125.75	5	60	4.90 58.82
113.75-116.75	5	48	4.90	47.06	119.75-122.75	4	55	3.92 53.92
110.75-113.75	4	43	3.92	42.16	116.75-119.75	3	51	2.94 50.00
107.75-110.75	2	39	1.96	38.24	113.75-116.75	3	48	2.94 47.06
104.75-107.75	1	37	.98	36.27	110.75-113.75	5	45	4.90 44.12
101.75-104.75	3	36	2.94	35.29	107.75-110.75	4	40	3.92 39.22
98.75-101.75	1	33	.98	32.35	104.75-107.75	2	36	1.96 35.29
95.75- 98.75	4	32	3.92	31.37	101.75-104.75	2	34	1.96 33.33
92.75- 95.75	2	28	1.96	27.45	98.75-101.75	1	32	.98 31.37
89.75- 92.75	1	26	.98	25.49	95.75- 98.75	1	31	.98 30.39
86.75- 89.75	0	25	0.00	24.51	92.75- 95.75	4	30	3.92 29.41
83.75- 86.75	1	25	.98	24.51	89.75- 92.75	2	26	1.96 25.49
80.75- 83.75	0	24	0.00	23.53	86.75- 89.75	1	24	.98 23.53
77.75- 80.75	4	24	3.92	23.53	83.75- 86.75	3	23	2.94 22.55
74.75- 77.75	2	20	1.96	19.61	80.75- 83.75	0	20	0.00 19.61
71.75- 74.75	3	18	2.94	17.65	77.75- 80.75	3	20	2.94 19.61
68.75- 71.75	2	15	1.96	14.71	74.75- 77.75	1	17	.98 16.67
65.75- 68.75	4	13	3.92	12.75	71.75- 74.75	3	16	2.94 15.69
62.75- 65.75	0	9	0.00	8.82	68.75- 71.75	3	13	2.94 12.75
59.75- 62.75	4	9	3.92	8.82	65.75- 68.75	3	10	2.94 9.80
56.75- 59.75	1	5	.98	4.90	62.75- 65.75	1	7	.98 6.86
53.75- 56.75	0	4	0.06	3.92	59.75- 62.75	2	6	1.96 5.88
50.75- 53.75	2	4	1.96	3.92	56.75- 59.75	2	4	1.96 3.92
47.75- 50.75	2	2	1.96	1.96	53.75- 56.75	1	2	.98 1.96
				47.75- 50.75	0	1	0.00 .98	
				47.75- 50.75	1	1	.98 .98	

FREQUENCY TABLES FOR MEN'S STATIC STRENGTH MEASUREMENTS  
(IN POUNDS)

25S STRNGTH/1H 45CM M1 S				
RANGES	FRQ	CUMF	FRQ%	CUMF%
159.75-162.25	1	102	.98	100.00
157.25-159.75	0	101	0.00	99.02
154.75-157.25	0	101	0.00	99.02
152.25-154.75	0	101	0.00	99.02
149.75-152.25	1	101	.98	99.02
147.25-149.75	0	100	0.00	98.04
144.75-147.25	0	100	0.00	98.04
142.25-144.75	1	100	.98	98.04
139.75-142.25	0	99	0.00	97.06
137.25-139.75	0	99	0.00	97.06
134.75-137.25	1	99	.98	97.06
132.25-134.75	0	98	0.00	96.08
129.75-132.25	1	98	.96	96.08
127.25-129.75	0	97	0.00	95.10
124.75-127.25	4	97	3.92	95.10
122.25-124.75	1	93	.98	91.18
119.75-122.25	2	92	1.96	90.20
117.25-119.75	2	90	1.96	88.24
114.75-117.25	3	88	2.94	86.27
112.25-114.75	2	85	1.96	83.33
109.75-112.25	0	83	0.00	81.37
107.25-109.75	2	83	1.96	81.37
104.75-107.25	1	81	.98	79.41
102.25-104.75	6	80	5.88	78.43
99.75-102.25	3	74	2.94	72.55
97.25- 99.75	3	71	2.94	69.61
94.75- 97.25	2	68	1.96	66.67
92.25- 94.75	9	66	8.82	64.71
89.75- 92.25	3	57	2.94	55.88
87.25- 89.75	4	54	3.92	52.94
84.75- 87.25	6	50	5.88	49.02
82.25- 84.75	4	44	3.92	43.14
79.75- 82.25	1	40	.98	39.22
77.25- 79.75	0	39	0.00	38.24
74.75- 77.25	2	39	1.96	38.24
72.25- 74.75	1	37	.98	36.27
69.75- 72.25	3	36	2.94	35.29
67.25- 69.75	3	33	2.94	32.35
64.75- 67.25	4	30	3.92	29.41
62.25- 64.75	4	26	3.92	25.49
59.75- 62.25	4	22	3.92	21.57
57.25- 59.75	1	18	.98	17.65
54.75- 57.25	3	17	2.94	16.67
52.25- 54.75	3	14	2.94	13.73
49.75- 52.25	1	11	.98	10.78
47.25- 49.75	4	10	3.92	9.80
44.75- 47.25	1	6	.98	5.88
42.25- 44.75	5	5	4.90	4.90

26S STRNGTH/1H 45CM M2 S				
RANGES	FRQ	CUMF	FRQ%	CUMF%
167.75-170.75	1	102	.98	100.00
164.75-167.75	0	101	0.00	99.02
161.75-164.75	0	101	0.00	99.02
158.75-161.75	0	101	0.00	99.02
155.75-158.75	0	101	0.00	99.02
152.75-155.75	0	101	0.00	99.02
149.75-152.75	0	101	0.00	99.02
146.75-149.75	0	101	0.00	99.02
143.75-146.75	0	101	0.00	99.02
140.75-143.75	1	101	.98	99.02
137.75-140.75	1	100	.98	98.04
134.75-137.75	3	99	2.94	97.06
131.75-134.75	4	96	3.92	94.12
128.75-131.75	1	92	.98	90.20
125.75-128.75	2	91	1.96	89.22
122.75-125.75	1	89	.98	87.25
119.75-122.75	3	88	2.94	86.27
116.75-119.75	1	85	.98	83.33
113.75-116.75	4	84	3.92	82.35
110.75-113.75	2	80	1.96	78.43
107.75-110.75	7	78	6.86	76.47
104.75-107.75	3	71	2.94	69.61
101.75-104.75	4	68	3.92	66.67
98.75-101.75	5	64	4.90	62.75
95.75- 98.75	2	59	1.96	57.84
92.75- 95.75	3	57	2.94	55.88
89.75- 92.75	9	54	8.82	52.94
86.75- 89.75	3	45	2.94	44.12
83.75- 86.75	2	42	1.96	41.18
80.75- 83.75	2	40	1.96	39.22
77.75- 80.75	4	38	3.92	37.25
74.75- 77.75	6	34	5.88	33.33
71.75- 74.75	5	28	4.90	27.45
68.75- 71.75	4	23	3.92	22.55
65.75- 68.75	4	19	3.92	18.63
62.75- 65.75	4	15	3.92	14.71
59.75- 62.75	3	11	2.94	10.78
56.75- 59.75	0	8	0.00	7.84
53.75- 56.75	3	8	2.94	7.84
50.75- 53.75	3	5	2.94	4.90
47.75- 50.75	1	2	.98	1.96
44.75- 47.75	1	1	.98	.98

FREQUENCY TABLES FOR MEN'S STATIC STRENGTH MEASUREMENTS  
(IN POUNDS)

275 STRNGTH/1H 45CM P1 S					265 STRNGTH/1H 45CM P2 S				
RANGES	FRQ	CUMF	FRQ%	CUMF%	RANGES	FRQ	CUMF	FRQ%	CUMF%
162.75-185.75	1	102	.98	100.00	194.75-197.75	1	102	.98	100.00
179.75-182.75	0	101	0.00	99.02	191.75-194.75	0	101	0.00	99.02
176.75-179.75	0	101	0.00	99.02	188.75-191.75	0	101	0.00	99.02
173.75-176.75	0	101	0.00	99.02	185.75-188.75	0	101	0.00	99.02
170.75-173.75	0	101	0.00	99.02	182.75-185.75	0	101	0.00	99.02
167.75-170.75	0	101	0.00	99.02	179.75-182.75	0	101	0.00	99.02
164.75-167.75	0	101	0.00	99.02	176.75-179.75	0	101	0.00	99.02
161.75-164.75	2	101	1.96	99.02	173.75-176.75	0	101	0.00	99.02
158.75-161.75	0	99	0.00	97.06	160.75-163.75	0	101	0.00	99.02
155.75-158.75	0	99	0.00	97.06	161.75-164.75	0	101	0.00	99.02
152.75-155.75	0	99	0.00	97.06	158.75-161.75	0	101	0.00	99.02
149.75-152.75	1	99	.98	97.06	155.75-158.75	2	101	1.96	99.02
146.75-149.75	1	98	.98	96.08	152.75-155.75	0	99	0.00	97.06
143.75-146.75	2	97	1.96	95.10	149.75-152.75	1	99	.98	97.06
140.75-143.75	1	95	.98	93.14	146.75-149.75	2	98	1.96	96.08
137.75-140.75	0	94	0.00	92.16	143.75-146.75	1	96	.98	94.12
134.75-137.75	5	94	4.90	92.16	140.75-143.75	5	95	4.90	93.14
131.75-134.75	2	89	1.96	87.25	137.75-140.75	3	90	2.94	88.24
128.75-131.75	1	87	.98	85.29	134.75-137.75	1	87	.98	85.29
125.75-128.75	4	86	3.92	84.31	131.75-134.75	2	86	1.96	84.31
122.75-125.75	3	82	2.94	80.39	128.75-131.75	2	84	1.96	82.35
119.75-122.75	3	79	2.94	77.45	125.75-128.75	1	82	.98	80.39
116.75-119.75	2	76	1.96	74.51	122.75-125.75	5	81	4.90	79.41
113.75-116.75	5	74	4.90	72.55	119.75-122.75	6	76	5.88	74.51
110.75-113.75	3	69	2.94	67.65	116.75-119.75	3	70	2.94	68.63
107.75-110.75	5	66	4.90	64.71	113.75-116.75	4	67	3.92	65.69
104.75-107.75	2	61	1.96	59.80	110.75-113.75	6	63	5.88	61.76
101.75-104.75	7	59	6.86	57.84	107.75-110.75	5	57	4.90	55.88
98.75-101.75	6	52	5.88	50.98	104.75-107.75	0	52	0.00	50.98
95.75- 98.75	3	46	2.94	45.10	101.75-104.75	5	52	4.90	50.98
92.75- 95.75	1	43	.98	42.16	98.75-101.75	2	47	1.96	46.08
89.75- 92.75	5	42	4.90	41.18	95.75- 98.75	6	45	5.88	44.12
86.75- 89.75	1	37	.98	36.27	92.75- 95.75	7	39	6.86	38.24
83.75- 86.75	3	36	2.94	35.29	89.75- 92.75	1	32	.98	31.37
80.75- 83.75	3	33	2.94	32.35	86.75- 89.75	2	31	1.96	30.39
77.75- 80.75	1	30	.98	29.41	83.75- 86.75	4	29	3.92	28.43
74.75- 77.75	4	29	3.92	26.43	80.75- 83.75	3	25	2.94	24.51
71.75- 74.75	6	25	5.88	24.51	77.75- 80.75	3	22	2.94	21.57
68.75- 71.75	3	19	2.94	18.63	74.75- 77.75	7	19	6.86	18.63
65.75- 68.75	0	16	0.00	15.69	71.75- 74.75	2	12	1.96	11.76
62.75- 65.75	4	16	3.92	15.69	68.75- 71.75	2	10	1.96	9.80
59.75- 62.75	1	12	.98	11.76	65.75- 68.75	1	8	.98	7.84
56.75- 59.75	3	11	2.94	10.78	62.75- 65.75	0	7	0.00	6.86
53.75- 56.75	3	8	2.94	7.84	59.75- 62.75	4	7	3.92	6.86
50.75- 53.75	4	5	3.92	4.90	56.75- 59.75	2	3	1.96	2.94
47.75- 50.75	1	1	.98	.98	53.75- 56.75	0	1	0.00	.98
					50.75- 53.75	1	1	.98	.98

FREQUENCY TABLES FOR MEN'S STATIC STRENGTH MEASUREMENTS  
(IN POUNDS)

29S STRNGTH/2H 38CM M1				30S STRNGTH/2H 38CM M2					
RANGES	FRQ	CUMF	FRQ%	CUMF	RANGES	FRQ	CUMF		
314.75-319.75	1	102	.98	100.00	319.75-324.75	1	102	.98	100.00
309.75-314.75	0	101	0.00	99.02	314.75-319.75	0	101	0.00	99.02
304.75-309.75	0	101	0.00	99.02	309.75-314.75	0	101	0.00	99.02
299.75-304.75	1	101	.98	99.02	304.75-309.75	0	101	0.00	99.02
294.75-299.75	0	100	0.00	98.04	299.75-304.75	0	101	0.00	99.02
289.75-294.75	0	100	0.00	98.04	294.75-299.75	0	101	0.00	99.02
284.75-289.75	1	100	.98	98.04	289.75-294.75	1	101	.98	99.02
279.75-284.75	0	99	0.00	97.06	284.75-289.75	0	100	0.00	98.04
274.75-279.75	1	99	.98	97.06	279.75-284.75	0	100	0.00	98.04
269.75-274.75	3	98	2.94	96.08	274.75-279.75	1	100	.98	98.04
264.75-269.75	3	95	2.94	93.14	269.75-274.75	0	99	0.00	97.06
259.75-264.75	1	92	.98	90.20	264.75-269.75	3	99	2.94	97.06
254.75-259.75	2	91	1.96	89.22	259.75-264.75	4	96	3.92	94.12
249.75-254.75	1	89	.98	87.25	254.75-259.75	0	92	0.00	90.20
244.75-249.75	4	88	3.92	86.27	249.75-254.75	0	92	0.00	90.20
239.75-244.75	2	84	1.96	82.35	244.75-249.75	4	92	3.92	90.20
234.75-239.75	2	82	1.96	80.39	239.75-244.75	0	88	0.00	86.27
229.75-234.75	3	80	2.94	78.43	234.75-239.75	6	88	0.00	86.27
224.75-229.75	3	77	2.94	75.49	229.75-234.75	8	88	7.84	86.27
219.75-224.75	0	74	0.00	72.55	224.75-229.75	6	80	5.88	78.43
214.75-219.75	3	74	2.94	72.55	219.75-224.75	4	74	3.92	72.55
209.75-214.75	4	71	3.92	69.61	214.75-219.75	6	78	5.88	68.63
204.75-209.75	5	67	4.90	65.69	209.75-214.75	4	64	3.92	62.75
199.75-204.75	4	62	3.92	60.78	204.75-209.75	4	60	3.92	58.82
194.75-199.75	5	58	4.90	56.86	199.75-204.75	6	56	5.88	54.90
189.75-194.75	5	53	4.90	51.96	194.75-199.75	5	54	4.90	49.02
184.75-189.75	7	48	6.86	47.06	189.75-194.75	2	45	1.96	44.12
179.75-184.75	6	41	5.88	40.20	184.75-189.75	7	43	6.86	42.16
174.75-179.75	4	35	3.92	34.31	179.75-184.75	1	36	.98	35.29
169.75-174.75	6	31	5.88	30.39	174.75-179.75	7	35	6.86	34.31
164.75-169.75	1	25	.98	24.51	169.75-174.75	3	28	2.94	27.45
159.75-164.75	3	24	2.94	23.53	164.75-169.75	3	25	2.94	24.51
154.75-159.75	3	21	2.94	20.59	159.75-164.75	2	22	1.96	21.57
149.75-154.75	2	18	1.96	17.65	154.75-159.75	5	20	4.90	19.61
144.75-149.75	3	16	2.94	15.69	149.75-154.75	5	15	4.90	14.71
139.75-144.75	3	13	2.94	12.75	144.75-149.75	2	18	1.96	9.80
134.75-139.75	5	10	4.90	9.80	139.75-144.75	2	8	1.96	7.84
129.75-134.75	1	5	.98	4.90	134.75-139.75	2	6	1.96	5.88
124.75-129.75	1	4	.98	3.92	129.75-134.75	1	4	.98	3.92
119.75-124.75	0	3	0.00	2.94	124.75-129.75	0	3	0.00	2.94
114.75-119.75	0	3	0.00	2.94	119.75-124.75	0	3	0.00	2.94
109.75-114.75	2	3	1.96	2.94	114.75-119.75	1	3	.98	2.94
104.75-109.75	0	1	0.00	.98	109.75-114.75	0	2	0.00	1.96
99.75-104.75	1	1	.98	.98	104.75-109.75	2	2	1.96	1.96

FREQUENCY TABLES FOR MEN'S STATIC STRENGTH MEASUREMENTS  
(IN POUNDS)

31S STRNGTH/2H 38CM P1				32S STRNGTH/2H 38CM P2					
RANGES	FRQ	CUMF	FRQ%	CUMF%	RANGES	FRQ	CUMF	FRQ%	CUMF%
339.75-344.75	1	102	.98	100.00	334.75-339.75	1	102	.98	100.00
334.75-339.75	1	101	.98	99.02	329.75-334.75	1	101	.98	99.02
329.75-334.75	0	100	0.00	98.04	324.75-329.75	0	100	0.00	98.04
324.75-329.75	0	100	0.00	98.04	319.75-324.75	0	100	0.00	98.04
319.75-324.75	0	100	0.00	98.04	314.75-319.75	0	100	0.00	98.04
314.75-319.75	0	100	0.00	98.04	309.75-314.75	0	100	0.00	98.04
309.75-314.75	2	100	1.96	98.04	304.75-309.75	0	100	0.00	98.04
304.75-309.75	0	98	0.00	96.08	299.75-304.75	1	100	.98	98.04
299.75-304.75	2	98	1.96	96.08	294.75-299.75	1	99	.98	97.06
294.75-299.75	0	96	0.00	94.12	289.75-294.75	2	98	1.96	96.08
289.75-294.75	0	96	0.00	94.12	284.75-289.75	0	96	0.00	94.12
284.75-289.75	1	96	.98	94.12	279.75-284.75	3	96	2.94	94.12
279.75-284.75	2	95	1.96	93.14	274.75-279.75	2	93	1.96	91.18
274.75-279.75	3	93	2.94	91.18	269.75-274.75	2	91	1.96	89.22
269.75-274.75	2	90	1.96	88.24	264.75-269.75	2	89	1.96	87.25
264.75-269.75	0	88	0.00	86.27	259.75-264.75	0	87	0.00	85.29
259.75-264.75	2	88	1.96	86.27	254.75-259.75	3	87	2.94	85.29
254.75-259.75	4	86	3.92	84.31	249.75-254.75	4	84	3.92	82.35
249.75-254.75	3	82	2.94	80.39	244.75-249.75	5	80	4.90	78.43
244.75-249.75	3	79	2.94	77.45	239.75-244.75	3	75	2.94	73.53
239.75-244.75	3	76	2.94	74.51	234.75-239.75	5	72	4.90	70.59
234.75-239.75	2	73	1.96	71.57	229.75-234.75	6	67	5.88	65.69
229.75-234.75	3	71	2.94	69.61	224.75-229.75	6	61	5.88	59.80
224.75-229.75	6	68	5.88	66.67	219.75-224.75	2	55	1.96	53.92
219.75-224.75	0	62	0.00	60.78	214.75-219.75	6	53	5.88	51.96
214.75-219.75	8	62	7.84	60.78	209.75-214.75	3	47	2.94	46.08
209.75-214.75	4	54	3.92	52.94	204.75-209.75	5	44	4.90	43.14
204.75-209.75	4	50	3.92	49.02	199.75-204.75	6	39	5.88	38.24
199.75-204.75	3	46	2.94	45.10	194.75-199.75	2	33	1.96	32.35
194.75-199.75	11	43	10.78	42.16	189.75-194.75	8	31	7.84	30.39
189.75-194.75	5	32	4.90	31.37	184.75-189.75	7	23	6.86	22.55
184.75-189.75	5	27	4.90	26.47	179.75-184.75	2	16	1.96	15.69
179.75-184.75	3	22	2.94	21.57	174.75-179.75	1	14	.98	13.73
174.75-179.75	2	19	1.96	18.63	169.75-174.75	3	13	2.94	12.75
169.75-174.75	2	17	1.96	16.67	164.75-169.75	3	10	2.94	9.80
164.75-169.75	5	15	4.90	14.71	159.75-164.75	2	7	1.96	6.86
159.75-164.75	3	10	2.94	9.80	154.75-159.75	2	5	1.96	4.90
154.75-159.75	0	7	0.00	6.86	149.75-154.75	0	3	0.00	2.94
149.75-154.75	1	7	.98	6.86	144.75-149.75	0	3	0.00	2.94
144.75-149.75	2	6	1.96	5.88	139.75-144.75	0	3	0.00	2.94
139.75-144.75	1	4	.98	3.92	134.75-139.75	0	3	0.00	2.94
134.75-139.75	0	3	0.00	2.94	129.75-134.75	2	3	1.96	2.94
129.75-134.75	1	3	.98	2.94	124.75-129.75	1	1	.98	.98
124.75-129.75	0	2	0.36	1.96					
119.75-124.75	2	2	1.96	1.96					

FREQUENCY TABLES FOR MEN'S STATIC STRENGTH MEASUREMENTS  
(IN POUNDS)

33S STRNGTH/2H 50CM M1					34S STRNGTH/2H 50CM M2				
RANGES	FRQ	CUMF	FRQ%	CUMF%	RANGES	FRQ	CUMF	FRQ%	CUMF%
294.75-299.75	1	102	.98	100.00	254.75-259.75	2	102	1.96	100.00
289.75-294.75	0	101	0.00	99.02	249.75-254.75	2	100	1.96	98.04
284.75-289.75	0	101	0.00	99.02	244.75-249.75	1	98	.98	96.06
279.75-284.75	0	101	0.00	99.02	239.75-244.75	0	97	0.00	95.10
274.75-279.75	1	101	.98	99.02	234.75-239.75	0	97	0.00	95.10
269.75-274.75	0	100	0.00	98.04	229.75-234.75	1	97	.98	95.10
264.75-269.75	1	100	.98	98.04	224.75-229.75	3	96	2.94	94.12
259.75-264.75	1	99	.98	97.06	219.75-224.75	3	93	2.94	91.18
254.75-259.75	0	98	0.00	96.08	214.75-219.75	0	90	0.00	88.24
249.75-254.75	0	98	0.00	96.08	209.75-214.75	2	90	1.96	88.24
244.75-249.75	0	98	0.00	96.08	204.75-209.75	5	88	4.90	86.27
239.75-244.75	0	98	0.00	96.08	199.75-204.75	2	83	1.96	81.37
234.75-239.75	1	98	.98	96.08	194.75-199.75	4	81	3.92	79.41
229.75-234.75	2	97	1.96	95.10	189.75-194.75	4	77	3.92	75.49
224.75-229.75	0	95	0.00	93.14	184.75-189.75	6	73	5.88	71.57
219.75-224.75	1	95	.98	93.14	179.75-184.75	2	67	1.96	65.69
214.75-219.75	1	94	.98	92.16	174.75-179.75	4	65	3.92	63.73
209.75-214.75	1	93	.98	91.18	169.75-174.75	6	61	5.88	59.80
204.75-209.75	4	92	3.92	90.20	164.75-169.75	8	55	7.84	53.92
199.75-204.75	10	88	9.80	86.27	159.75-164.75	8	47	7.84	46.08
194.75-199.75	3	78	2.94	76.47	154.75-159.75	5	39	4.90	38.24
189.75-194.75	2	75	1.96	73.53	149.75-154.75	9	34	8.82	33.33
184.75-189.75	5	73	4.90	71.57	144.75-149.75	2	25	1.96	24.51
179.75-184.75	2	68	1.96	66.67	139.75-144.75	4	23	3.92	22.55
174.75-179.75	7	66	6.86	64.71	134.75-139.75	4	19	3.92	18.63
169.75-174.75	6	59	5.88	57.84	129.75-134.75	4	15	3.92	14.71
164.75-169.75	9	53	8.82	51.96	124.75-129.75	3	11	2.94	10.78
159.75-164.75	7	44	6.86	43.14	119.75-124.75	2	8	1.96	7.84
154.75-159.75	5	37	4.90	36.27	114.75-119.75	0	6	0.00	5.88
149.75-154.75	5	32	4.90	31.37	109.75-114.75	3	6	2.94	5.88
144.75-149.75	4	27	3.92	26.47	104.75-109.75	1	3	.98	2.94
139.75-144.75	4	23	3.92	22.55	99.75-104.75	1	2	.98	1.96
134.75-139.75	4	19	3.92	18.63	94.75-99.75	0	1	0.00	.98
129.75-134.75	2	15	1.96	14.71	89.75-94.75	1	1	.98	.98
124.75-129.75	2	13	1.96	12.75					
119.75-124.75	3	11	2.94	10.78					
114.75-119.75	1	8	.98	7.84					
109.75-114.75	1	7	.98	6.86					
104.75-109.75	0	6	0.00	5.88					
99.75-104.75	1	6	.98	5.88					
94.75-99.75	4	5	3.92	4.90					
89.75-94.75	0	1	0.00	.98					
84.75-89.75	0	1	0.00	.98					
79.75-84.75	1	1	.98	.98					

FREQUENCY TABLES FOR MEN'S STATIC STRENGTH MEASUREMENTS  
(IN POUNDS)

35S STRNGTH/2H 50CM P1

RANGES	FRQ	CUMF	FRQ%	CUMF%
319.75-324.75	1	102	.98	100.00
314.75-319.75	0	101	0.00	99.02
309.75-314.75	1	101	.98	99.02
304.75-309.75	0	100	0.00	98.04
299.75-304.75	1	100	.98	98.04
294.75-299.75	0	99	0.00	97.06
289.75-294.75	0	99	0.00	97.06
284.75-289.75	1	99	.98	97.06
279.75-284.75	0	98	0.00	96.08
274.75-279.75	0	98	0.00	96.08
269.75-274.75	0	98	0.00	96.08
264.75-269.75	0	98	0.00	96.08
259.75-264.75	0	98	0.00	96.08
254.75-259.75	1	98	.98	96.08
249.75-254.75	1	97	.98	95.10
244.75-249.75	1	96	.98	94.12
239.75-244.75	1	95	.98	93.14
234.75-239.75	3	94	2.94	92.16
229.75-234.75	4	91	3.92	89.22
224.75-229.75	2	87	1.96	85.29
219.75-224.75	3	85	2.94	83.33
214.75-219.75	5	82	4.90	80.39
209.75-214.75	5	77	4.90	75.49
204.75-209.75	3	72	2.94	70.59
199.75-204.75	2	69	1.96	67.65
194.75-199.75	4	67	3.92	65.69
189.75-194.75	3	63	2.94	61.76
184.75-189.75	8	60	7.84	58.82
179.75-184.75	3	52	2.94	50.98
174.75-179.75	7	49	6.86	48.04
169.75-174.75	9	42	8.82	41.18
164.75-169.75	6	33	5.88	32.35
159.75-164.75	5	27	4.90	26.47
154.75-159.75	4	22	3.92	21.57
149.75-154.75	2	18	1.96	17.65
144.75-149.75	3	16	2.94	15.69
139.75-144.75	4	13	3.92	12.75
134.75-139.75	2	9	1.96	8.82
129.75-134.75	0	7	0.00	6.86
124.75-129.75	0	7	0.00	6.86
119.75-124.75	2	7	1.96	6.86
114.75-119.75	3	5	2.94	4.90
109.75-114.75	1	2	.98	1.96
104.75-109.75	0	1	0.00	.98
99.75-104.75	0	1	0.00	.98
94.75- 99.75	0	1	0.00	.98
89.75- 94.75	1	1	.98	.98

36S STRNGTH/2H 50CM P2

RANGES	FRQ	CUMF	FRQ%	CUMF%
294.75-299.75	1	102	.98	100.00
289.75-294.75	2	101	1.96	99.02
284.75-289.75	0	99	0.00	97.06
279.75-284.75	0	99	0.00	97.06
274.75-279.75	1	99	.98	97.06
269.75-274.75	3	98	2.94	96.08
264.75-269.75	0	95	0.00	93.14
259.75-264.75	0	95	0.00	93.14
254.75-259.75	6	95	0.00	93.14
249.75-254.75	3	95	2.94	93.14
244.75-249.75	2	92	1.96	90.20
239.75-244.75	2	90	1.96	88.24
234.75-239.75	1	88	.98	86.27
229.75-234.75	2	87	1.96	85.29
224.75-229.75	1	85	.98	83.33
219.75-224.75	3	84	2.94	82.35
214.75-219.75	6	81	5.88	79.41
209.75-214.75	3	75	2.94	73.53
204.75-209.75	5	72	4.90	70.59
199.75-204.75	5	67	4.90	65.69
194.75-199.75	3	62	2.94	60.78
189.75-194.75	2	59	1.96	57.84
184.75-189.75	8	57	7.84	55.88
179.75-184.75	6	49	5.88	48.04
174.75-179.75	7	43	6.86	42.16
169.75-174.75	5	36	4.90	35.29
164.75-169.75	7	31	6.86	30.39
159.75-164.75	2	24	1.96	23.53
154.75-159.75	6	22	5.88	21.57
149.75-154.75	2	16	1.96	15.69
144.75-149.75	3	14	2.94	13.73
139.75-144.75	2	11	1.96	10.78
134.75-139.75	3	9	2.94	8.82
129.75-134.75	1	6	.98	5.88
124.75-129.75	1	5	.98	4.90
119.75-124.75	3	4	2.94	3.92
114.75-119.75	1	1	.98	.98

Preceding Page BLANK - NOT FILMED

## APPENDIX C

### XVAL COMPUTER PRINTOUTS

The following pages contain computer printouts for the core series and each of the four subseries for the XVAL (=eXtreme VALue) program. These printouts represent the data after the editing had been completed.

These printouts provide, for each variable, the following values:

- a. the ten smallest values and the associated subject numbers;
- b. the ten largest values and the associated subject numbers;
- c. the mean value based on all the data;
- d. the standard deviation based on all the data;
- e. the coefficient of variation;
- f.  $\beta_1$ , the measure of symmetry;
- g.  $\beta_2$ , the measure of kurtosis;
- h. the mean value based on all the data except the 20 extreme values (those listed here): "(N-20)-AVG EST";
  - i. the standard deviation estimated on the basis of all the data except the 20 extreme values (a truncated normal distribution is assumed): "(N-20)-S.D. EST";
  - j. the difference between the two mean values (items c and h) expressed as a percent of the estimated standard deviation (item i);
  - k. the difference between the two standard deviation values (items d and i) similarly expressed;
- l. the number of non-zero values.

The data values are in the units in which they were measured with a few exceptions. Most values are in millimeters. The static strength values are in tenths of pounds. The weights were measured to the quarter-pound and punched as tenths of pounds.

The XVAL printout for the static strength subseries covers the 36 measurements: two mean and two peak values at each of nine arrangements. Two additional measurements -- stature and weight -- are included for comparative purposes. Following are the means, standard deviations, 5th and 95th percentile values for these additional variables.

	<u>Mean</u>	<u>S.D.</u>	<u>5th %ile</u>	<u>95th %ile</u>
Stature	174.0 cm	7.0	162.6	185.7
Weight	157.8 lbs	26.4	122.9	203.5

C-1. XVAL TABLES FOR THE CORE-SUBSERIES 1 MEASUREMENTS

## STATISTICS FOR VARIABLES 1C THROUGH ST

	1C WEIGHT	2C STATURE	4C AXILLA HE IGHT	2T SUPRASTER NALE HEIG HT	5C CHEST HEI GHT	3T SUBSTERNA LE HEIGHT	4T ELBOW HEI GHT	5T KNUCKLE H EIGHT
	VALUE SUBJECT	VALUE SUBJECT	VALUE SUBJECT	VALUE SUBJECT	VALUE SUBJECT	VALUE SUBJECT	VALUE SUBJECT	VALUE SUBJECT
1ST SMALLEST	1025.0	5068	1530.6	5042	1133.0	5008	1246.0	5068
2ND SMALLEST	1035.0	5042	1537.0	5068	1150.6	5159	1246.0	5042
3RD SMALLEST	1038.0	5038	1562.0	5159	1150.0	5142	1109.0	5159
4TH SMALLEST	1142.0	5226	1286.0	5068	1103.0	5008	1038.0	5008
5TH SMALLEST	1165.0	5645	1580.0	5180	1179.0	5170	1146.0	5158
6TH SMALLEST	1173.0	5184	1591.0	5233	1189.0	5161	1293.0	5230
7TH SMALLEST	1180.0	5199	1593.0	5011	1190.0	5180	1297.0	5011
8TH SMALLEST	1185.0	5266	1598.0	5101	1192.0	5111	1152.0	5230
9TH SMALLEST	1185.0	5176	1599.0	5120	1197.0	5086	1303.0	5182
XTH SMALLEST	1200.0	5238	1667.0	5274	1200.0	5077	1202.0	5068
*****								
XTH LARGEST	2098.0	5168	1374.0	5058	1418.0	5187	1244.0	5128
1TH LARGEST	2103.0	5017	1874.0	5168	1423.0	5205	1244.0	5239
8TH LARGEST	2115.0	5083	1875.0	5239	1427.0	5257	1553.0	5265
7TH LARGEST	2133.0	5090	1876.0	5239	1428.0	5257	1377.0	5168
6TH LARGEST	2155.0	5051	1891.0	5265	1429.0	5136	1301.0	5168
5TH LARGEST	2155.0	5181	1898.0	5264	1433.0	5168	1265.0	5264
4TH LARGEST	2163.0	5056	1907.0	5130	1452.0	5204	1507.0	5267
3RD LARGEST	2174.0	5264	1912.0	5279	1456.0	5267	1570.0	5130
2ND LARGEST	2203.0	5222	1930.0	5267	1456.0	5279	1400.0	5279
1ST LARGEST	2338.0	5058	1974.0	5051	1497.0	5051	1027.0	5051
THE MEAN VALUE	1560.16		1740.74	1312.44	1426.99	1274.26	1225.68	1094.02
STD. DEVIATION	242.16	08.19	56.89	66.88	56.71	54.94	29.54	41.15
COFF/VARIATION	16.52	3.92	4.49	4.26	4.45	4.48	4.02	5.45
VETA ONE	.61	.00	-.08	-.01	-.04	-.15	-.03	.05
VETA TWO	2.94	3.54	3.23	3.37	3.22	3.38	3.28	3.26
(N-2C)-AVG EST	1523.60	1740.79	1312.77	1427.01	1274.24	1226.19	1094.06	755.01
(N-2C)-S.D.EST	245.90	65.51	57.98	59.17	56.13	53.90	49.64	46.62
PCT DIFF/MEANS	3.	-6.	-1.	-0.	-1.	-1.	-6.	3.
PCT DIF/ST DVS	-2.	4.	2.	3.	1.	2.	1.	
SIZE OF SAMPLE	287	287	287	287	287	287	287	287

153

## STATISTICS FOR VARIABLES 6L THROUGH 12C

	6C WAIST HT/ NATURAL	8C BUTTOCK H EIGHT	7T URROW HT VALUE	8C SUBJECT	7T GLUTEAL F SUBJECT	7T TRIANGLE H SUBJECT	9T ACROMION- RADIALE-S	10T RADIALE-S TYLION	11C SITTING H SUBJECT	12C EYE HEIGHT T/SIT
1ST SMALLEST	906.0 5159	725.0 5042	901.0 5042	404.0 5159	279.0 5159	210.0 5042	761.0 5144	668.0 5120	668.0 5120	668.0 5120
2ND SMALLEST	908.0 5086	771.0 5212	694.0 5159	404.0 5159	290.0 5015	220.0 5159	791.0 5008	675.0 5008	675.0 5008	675.0 5008
3RD SMALLEST	916.0 5008	774.0 5015	760.0 5011	404.0 5111	291.0 2042	229.0 5015	863.0 5068	685.0 5068	685.0 5068	685.0 5068
4TH SMALLEST	917.0 5042	775.0 5159	710.0 5170	415.0 5042	296.0 5160	235.0 5220	829.0 5066	698.0 5150	698.0 5150	698.0 5150
5TH SMALLEST	920.0 5170	779.0 5078	712.0 5221	420.0 5266	295.0 5070	235.0 5170	945.0 5153	699.0 5042	699.0 5042	699.0 5042
6TH SMALLEST	933.0 5041	780.0 5266	714.0 5183	420.0 5070	301.0 5221	237.0 5230	917.0 5042	702.0 5153	702.0 5153	702.0 5153
7TH SMALLEST	934.0 5099	791.0 5186	718.0 5286	421.0 5015	341.0 5226	237.0 5111	916.0 5117	703.0 5117	703.0 5117	703.0 5117
8TH SMALLEST	935.0 5230	793.0 5270	720.0 5270	423.0 5077	302.0 5211	239.0 5286	822.0 5091	520.0 5091	520.0 5091	520.0 5091
9TH SMALLEST	935.0 5211	797.0 5076	721.0 5151	425.0 5221	302.0 5099	241.0 5221	821.0 5154	708.0 5229	708.0 5229	708.0 5229
XTH SMALLEST	936.0 5186	797.0 5041	721.0 5008	425.0 5036	344.0 5029	242.0 5185	520.0 5254	709.0 5254	709.0 5254	709.0 5254
*****										
XTH LARGEST	1148.0 3016	986.0 5050	887.0 5050	229.0 5257	370.0 5274	360.0 5269	960.0 5067	840.0 5239	840.0 5239	840.0 5239
9TH LARGEST	1148.0 5021	990.0 5060	889.0 5060	230.0 5243	371.0 5016	361.0 5010	966.0 5066	841.0 5051	841.0 5051	841.0 5051
8TH LARGEST	1148.0 5116	990.0 5105	890.0 5136	530.0 5264	371.0 5250	302.0 5267	906.0 5192	841.0 5111	841.0 5111	841.0 5111
7TH LARGEST	1155.0 5257	991.0 5257	990.0 5267	232.0 5136	372.0 5161	302.0 5273	969.0 5164	844.0 5009	844.0 5009	844.0 5009
6TH LARGEST	1156.0 5118	992.0 5278	993.0 5278	542.0 5211	372.0 5267	304.0 5130	976.0 5125	844.0 5125	844.0 5125	844.0 5125
5TH LARGEST	1163.0 5279	1144.0 5264	996.0 5257	243.0 5267	371.0 5267	340.0 5273	976.0 5050	850.0 5168	850.0 5168	850.0 5168
4TH LARGEST	1169.0 5113	1169.0 5279	990.0 5136	246.0 5136	370.0 5130	302.0 5117	976.0 5058	851.0 5058	851.0 5058	851.0 5058
3RD LARGEST	1175.0 5267	1124.0 5267	990.0 5279	249.0 5094	379.0 5064	305.0 5161	962.0 5021	859.0 5267	859.0 5267	859.0 5267
2ND LARGEST	1190.0 5251	1029.0 5136	913.0 5279	557.0 5279	387.0 5213	306.0 5021	996.0 5208	865.0 5085	865.0 5085	865.0 5085
1ST LARGEST	1191.0 5017	1154.0 5051	946.0 5051	556.0 5051	393.0 5267	312.0 507	406.0 5035	867.0 5264	867.0 5264	867.0 5264
THE MEAN VALUE	1041.18	944.0 08	802.0 71	482.0 14	337.0 42	468.0 43	622.0 43	774.0 17	774.0 17	774.0 17
STD. DEVIATION	57.46	50.69	44.17	27.60	16.23	15.75	35.32	33.92	33.92	33.92
COFF/VARIATION	5.52	2.67	5.52	2.73	5.40	5.87	4.38	4.38	4.38	4.38
VETA ONE	.04	.01	.06	.14	.11	.03	.01	.01	.01	.01
VETA TWO	2.07	3.69	3.16	3.16	3.16	3.25	3.34	3.23	3.23	3.23
(N=20)-AVG EST	1646.96	6344.07	865.68	405.46	337.47	406.39	833.41	774.28	774.28	774.28
(N=20)-S.D. EST	59.25	50.60	44.26	27.22	16.15	15.50	35.50	33.32	33.32	33.32
PCT DIFF/MEANS	6.	6.	6.	-1.	-1.	0.	0.	2.	2.	2.
PCT DIFF/ST DJS	-3.	0.	-0.	2.	J.	0.	0.	2.	2.	2.
SIZE OF SAMPLE	287	287	287	287	287	287	287	287	287	287

**DIRECT APPENDIX**  
**COPY**

STATISTICS FOR VARIABLES 13C THROUGH 19C

		13C		14C		15C		16C		17C		18C		19C	
SHLUER-EL		ELBOW-CTR		ELBOW-FIN		KNEE HEIG		POPLITEAL		BUTTOCK-K		CHEST DEP		WAIST DEP	
BOW LGTH		GRIP LGT		GERTIF LG		HT/SIT		HEIGHT		NÉE LENGT		TH		TH	
VALUE	SBJCT	VALUE	SBJCT	VALUE	SBJCT	VALUE	SBJCT	VALUE	SBJCT	VALUE	SBJCT	VALUE	SBJCT	VALUE	SBJCT
1ST	SMALLEST	312.0	5159	263.0	5159	460.0	5159	465.0	5159	524.0	5133	175.0	5184	160.0	5068
2NU	SMALLEST	312.0	5615	297.0	5442	400.0	5442	409.0	5042	373.0	5159	220.0	5159	175.0	514
3EQ	SMALLEST	315.0	5042	31.0	5266	448.0	5015	472.0	5159	533.0	5008	178.0	5182	165.0	5238
4TH	SMALLEST	317.0	5180	307.0	5033	421.0	5286	475.0	5011	536.0	5011	179.0	5286	165.0	5199
5TH	SMALLEST	322.0	5224	307.0	5012	421.0	5008	478.0	5236	375.0	5280	160.0	5042	168.0	5035
6TH	SMALLEST	324.0	5070	308.0	5224	428.0	5011	484.0	5286	379.0	5042	160.0	5042	169.0	5079
7TH	SMALLEST	326.0	5230	310.0	5111	430.0	5060	488.0	5115	383.0	5070	162.0	5111	171.0	5250
8TH	SMALLEST	327.0	5286	311.0	5250	451.0	5184	489.0	5160	385.0	5176	164.0	5286	171.0	5229
9TH	SMALLEST	327.0	5041	311.0	5166	432.0	5112	492.0	5076	398.0	5115	161.0	5062	184.0	5254
XTH	SMALLEST	328.0	5160	312.0	5168	433.0	5230	494.0	5170	396.0	5221	160.0	5130	184.0	5101
*****															
XTH	LARGEST	397.0	5016	387.0	5267	526.0	5279	505.0	5202	491.0	5185	663.0	5064	202.0	5337
3TH	LARGEST	398.0	5181	395.0	5051	395.0	5051	395.0	5051	512.0	5122	664.0	5267	202.0	5167
5TH	LARGEST	399.0	5000	391.0	5279	527.0	5267	509.0	5021	495.0	5257	502.0	5181	202.0	5175
7TH	LARGEST	399.0	5107	392.0	5243	529.0	5156	514.0	5227	496.0	5021	666.0	5158	263.0	5053
6TH	LARGEST	402.0	5279	395.0	5067	533.0	5007	617.0	5607	496.0	5262	669.0	5165	263.0	5037
5TH	LARGEST	404.0	5264	397.0	5013	533.0	5243	519.0	5017	531.0	5007	672.0	5279	262.0	5059
4TH	LARGEST	406.0	5051	397.0	5270	536.0	5012	520.0	5130	504.0	5130	676.0	5264	265.0	5222
3EQ	LARGEST	408.0	5013	401.0	5181	536.0	5181	524.0	5013	509.0	5013	677.0	521	266.0	5086
2ND	LARGEST	413.0	5130	403.0	5130	543.0	5024	634.0	5051	241.0	5051	696.0	517	272.0	5056
1ST	LARGEST	418.0	5207	406.0	5021	546.0	5130	632.0	5279	520.0	5279	703.0	5051	272.0	5175
THE MEAN VALJE		363.16		349.72		477.74		520.96		442.73		607.01		216.84	
STD. DEVIATION		16.53		19.63		24.72		36.23		27.16		30.75		19.97	
COFF/VARIATION		5.10		2.61		5.17		2.49		6.14		5.06		9.21	
VETA ONE		.03		-.00		-.03		-.04		-.03		.03		.03	
VETA TWO		3.66		3.44		3.33		3.46		3.52		3.04		2.84	
(N-20)-AVG EST		363.19		349.67		477.77		551.10		442.91		547.89		216.34	
(N-20)-S.D.EST		16.38		19.06		24.24		29.90		26.95		31.65		21.39	
PCT DIFF/MEANS	-6.	6.		-0.		-0.		-u-		-1.		-0.		2.	
PCT DIFF/ST DJS	1.	3.		2.		1.		1.		1.		u.		-2.	
SIZE OF SAMPLE	287	287		287		287		287		287		287		287	

## STATISTICS FOR VARIABLES 161 THROUGH 33C

	16T	25C	27C	29C	19T	30C	HIP CIRCUIT	BICEPS CI RC, RxD	33C
BIACROMIA	SHOULDER	CHEST CIR	CUMFERENC	WAIST CIR	WAIST CIR	WAIST CIR	MERENUE SUBJECT	BICEPS CI RC, RxD	
L.DREADTH	CIRCUMFER	VALUE SUBJECT	VALU SUBJECT	V/NATURAL	C/OMPHALI	VALU SUBJECT	VALU SUBJECT	VALU SUBJECT	
1ST SMALLEST	330.0 5168	953.0 5042	787.0 5207	334.0 5068	634.0 5068	838.0 5068	220.0 5055	238.0 5055	
2ND SMALLEST	344.0 5106	977.0 5068	795.0 5238	642.0 5238	654.0 5238	626.0 5238	226.0 5237	249.0 5237	
3RD SMALLEST	347.0 5642	989.0 5226	806.0 5333	650.0 5226	653.0 5226	622.0 5226	235.0 5068	250.0 5042	
4TH SMALLEST	349.0 5055	993.0 5163	609.0 5090	661.0 5192	661.0 5192	661.0 5192	236.0 5104	257.0 5068	
5TH SMALLEST	353.0 5123	991.0 5217	812.0 5055	660.0 5195	661.0 5068	864.0 5068	239.0 5205	260.0 5205	
6TH SMALLEST	354.0 5226	993.0 5134	616.0 5104	672.0 5172	675.0 5172	659.0 5172	864.0 5116	260.0 5116	
7TH SMALLEST	355.0 5204	994.0 5065	923.0 5042	375.0 5165	370.0 5075	605.0 5176	242.0 5104	262.0 5104	
8TH SMALLEST	357.0 5219	998.0 5050	628.0 5184	376.0 5199	672.0 5172	667.0 5203	242.0 5033	266.0 5033	
9TH SMALLEST	357.0 5098	1000.0 5164	832.0 5046	678.0 5055	675.0 5155	667.0 5155	244.0 5172	267.0 5172	
XTH SMALLEST	358.0 5173	1001.0 5120	337.0 5178	677.0 5202	675.0 5142	669.0 5142	247.0 5072	267.0 5072	
*****									
XTH LARGEST	430.0 5065	1224.0 2019	1068.0 5012	320.0 5086	980.0 5165	1080.0 5129	345.0 5017	362.0 5122	
9TH LARGEST	430.0 5141	1224.0 5094	1176.0 5019	981.0 5165	990.0 5165	1064.0 5054	346.0 5099	363.0 5246	
8TH LARGEST	431.0 5026	1230.0 5056	1177.0 5056	973.0 5137	990.0 5053	1096.0 5059	347.0 5059	364.0 5083	
7TH LARGEST	433.0 5048	1228.0 5175	1085.0 5017	990.0 5053	1003.0 5090	1090.0 5090	332.0 5258	366.0 5056	
6TH LARGEST	435.0 5279	1239.0 5056	1091.0 5270	1104.0 5090	1146.0 5175	1097.0 5083	352.0 5094	369.0 5272	
5TH LARGEST	436.0 5012	1248.0 5019	1172.0 5094	1126.0 5175	1135.0 5019	1105.0 5019	337.0 5034	372.0 5181	
4TH LARGEST	436.0 5021	1222.0 5017	1199.0 5022	1141.0 5029	1141.0 5059	1112.0 5181	337.0 5184	374.0 5090	
3RD LARGEST	439.0 5114	1226.0 5093	1169.0 5083	1042.0 5062	1057.0 5056	1133.0 5017	359.0 5056	379.0 5222	
2ND LARGEST	446.0 5101	1293.0 5181	1110.0 5056	1121.0 5222	1166.0 5222	1132.0 5222	361.0 5064	381.0 5066	
1ST LARGEST	449.0 5264	1331.0 5083	1112.0 5175	1082.0 5056	1082.0 5056	1113.0 5056	361.0 5222	390.0 5058	
THE MEAN VALUE	334.56	1149.22	929.03	788.76	788.75	151.43	231.02	313.78	
STD. DEVIATION	19.62	01.42	01.01	00.44	02.94	01.43	27.68	27.14	
COFF/VARIATION	5.02	2.54	7.11	1.22	1.22	0.35	9.49	8.65	
VETA ONE	-0.13	.29	*56	1.06	1.11	.77	*24	*13	
VETA TWO	2.62	2.06	2.63	3.97	4.04	3.10	2.73	2.65	
(N-20)-AVG EST	394.64	1138.45	927.23	782.05	784.50	949.06	291.20	313.68	
(N-20)-S.D.EST	20.69	02.51	67.43	79.42	51.17	62.02	25.14	27.89	
PCT DIFF/MEAS	-6.	1.	5.	2.	2.	**	1.	0.	
PCT DIFF/S.D.S	-1.	-2.	-2.	-2.	-2.	-2.	-2.	-3.	
SIZ= OF SAMPLE	267	287	287	287	287	287	287	287	

## STATISTICS FOR VARIABLES 161 THROUGH 33C

	16T	25C	27C	29C	19T	30C	23T	BICEPS CI RC, RLXO VALUE SUBJECT	BICEPS CI RC, RLXO VALUE SUBJECT	BICEPS CI RC, RLXO VALUE SUBJECT
BIACROMIA L BREATH	SHOULDER CIRCONFTR VALUE SBJCT	CHEST CIR CUMFERENC VALUE SUBJECT	WAIST CIR C/NATURAL VALUE SUBJECT	WAIST CIR C/OMPHALI VALUE SUBJECT	HIP CIRCU MFERENCLÉ VALUE SUBJECT	HIP CIRCU C/OMPHALI VALUE SUBJECT	HIP CIRCU C/OMPHALI VALUE SUBJECT			
1ST SMALLEST	330.0 5168	953.0 5042	787.0 5207	634.0 5068	838.0 5068	220.0 5055	238.0 5005			
2ND SMALLEST	344.0 5106	977.0 5068	795.0 5066	642.0 5238	654.0 5238	228.0 5217	249.0 5217			
3RD SMALLEST	347.0 5042	989.0 5226	806.0 5133	660.0 5207	853.0 5226	235.0 5068	256.0 5042			
4TH SMALLEST	349.0 5035	999.0 5183	809.0 5090	661.0 5066	862.0 5183	236.0 5104	257.0 5068			
5TH SMALLEST	353.0 5123	991.0 5207	812.0 5155	666.0 5195	864.0 5142	239.0 5116	260.0 5205			
6TH SMALLEST	354.0 5226	993.0 5134	816.0 5104	672.0 5172	870.0 5199	240.0 5105	260.0 5116			
7TH SMALLEST	355.0 5234	994.0 5065	823.0 5142	675.0 5155	870.0 5075	240.0 5176	242.0 5104			
8TH SMALLEST	357.0 5219	998.0 5066	828.0 5184	676.0 5199	972.0 5172	242.0 5172	242.0 5042			
9TH SMALLEST	327.0 5098	1000.0 5104	831.0 5146	679.0 5065	975.0 5155	242.0 5060	266.0 5033			
XTH SMALLEST	358.0 5173	1001.0 5120	837.0 5178	677.0 5202	975.0 5155	244.0 5182	267.0 5172			
XTH LARGEST	430.0 5065	1224.0 5069	1068.0 5112	986.0 5086	980.0 5165	1080.0 5129	345.0 5017	362.0 5122		
2TH LARGEST	430.0 5141	1224.0 5094	1076.0 5119	981.0 5119	980.0 5165	1084.0 5137	346.0 5054	363.0 5246		
3TH LARGEST	431.0 526	1230.0 5056	1177.0 5156	973.0 5037	990.0 5053	1096.0 5159	347.0 5059	364.0 5063		
7TH LARGEST	433.0 5048	1236.0 5175	1083.0 5117	990.0 5033	1030.0 5033	1090.0 5093	352.0 5058	366.0 5056		
6TH LARGEST	435.0 5279	1239.0 5050	1191.0 5270	1103.0 5090	1126.0 5175	1097.0 5083	352.0 5063	369.0 5272		
5TH LARGEST	436.0 5112	1248.0 5019	1102.0 5196	1126.0 5175	1135.0 5019	1105.0 5119	327.0 5038	372.0 5101		
4TH LARGEST	436.0 5021	1222.0 5017	1199.0 5222	1141.0 5029	1141.0 5181	1142.0 5181	327.0 5181	374.0 5090		
3RD LARGEST	439.0 5114	1236.0 5093	1109.0 5043	1142.0 5026	1057.0 5056	1133.0 5017	359.0 5222	379.0 5222		
2NU LARGEST	446.0 5131	1293.0 5181	1110.0 5056	1151.0 5222	1060.0 5222	1133.0 5222	361.0 5060	381.0 5060		
1ST LARGEST	449.0 5264	1301.0 5083	1112.0 5175	1182.0 5058	1182.0 5058	1138.0 5050	381.0 5222	396.0 5058		
THE MEAN VALUE	394.56	1119.22	925.03	786.76	788.75	951.43	313.78			
STD. DEVIATION	19.62	81.42	86.04	86.40	52.94	61.03	27.14			
COFF/VARIATION	5.02	2.64	7.11	10.22	10.22	8.35	8.65			
VETA ONE	-1.13	*.29	*.56	*.66	*.11	*.77	*.13			
VETA TWO	2.62	2.06	2.63	3.97	4.04	3.10	2.65			
(N-2) - AVG EST	394.64	1108.45	927.23	782.05	784.50	949.06	313.68			
(N-2) - S.D. EST	20.09	62.51	67.43	79.42	81.17	62.02	27.89			
PCT DIFF/MAIS	-6.	1.	3.	5.	**	**	0.			
PCT DIFF/ST DJS	-1.	-2.	-2.	1.	2.	-3.	-3.			
SIZE OF SAMPLE	267	287	287	287	297	287	297			

## STATISTICS FOR VARIABLES 39C THROUGH 47C

	39C CALF CIRC UNFERENCE	40C ANKLE CIR CUMFERENC	42C INTERSCYE BACK	43C INTERSCYE FRONT	44C BACK ARC, CHEST	45C BACK ARC, WAIST	46C BACK ARC, HIP	47C WAIST BAC K
1ST SMALLEST	285.0 5008	180.0 5008	332.0 5049	317.0 5055	378.0 5068	311.0 5233	395.0 5176	377.0 5241
2ND SMALLEST	294.0 5199	184.0 5199	334.0 5046	321.0 5042	380.0 5238	314.0 5266	409.0 5087	380.0 5091
3RD SMALLEST	296.0 5226	187.0 5226	344.0 5146	324.0 5204	394.0 5095	319.0 5159	413.0 5159	380.0 5019
4TH SMALLEST	297.0 5068	187.0 5042	346.0 5105	325.0 5226	395.0 5011	324.0 5282	414.0 5183	382.0 5131
5TH SMALLEST	301.0 5236	188.0 5286	354.0 5134	327.0 5169	396.0 5033	322.0 5042	415.0 5155	382.0 5120
6TH SMALLEST	304.0 5176	189.0 5238	355.0 5286	328.0 5183	399.0 5104	324.0 5195	415.0 5033	384.0 5251
7TH SMALLEST	305.0 5253	189.0 5136	352.0 5098	329.0 5214	401.0 5286	325.0 5199	417.0 5226	385.0 5006
8TH SMALLEST	306.0 5172	190.0 5176	356.0 5199	329.0 5109	406.0 5195	325.0 5105	416.0 5207	386.0 5253
9TH SMALLEST	311.0 5104	191.0 5149	357.0 5149	330.0 5219	407.0 5072	327.0 5052	420.0 5199	388.0 5230
XTH SMALLEST	311.0 5042	191.0 5068	359.0 5097	330.0 5178	411.0 5124	328.0 5013	420.0 5166	390.0 5080
XTH LARGEST	415.0 5217	241.0 5061	405.0 5175	407.0 5156	422.0 5059	482.0 5094	535.0 5019	510.0 5237
9TH LARGEST	416.0 5181	242.0 5265	468.0 5157	447.0 5161	524.0 5165	484.0 5037	535.0 5041	511.0 5090
8TH LARGEST	418.0 5269	243.0 5045	468.0 5248	*10.0 5048	526.0 5217	488.0 5086	535.0 5059	513.0 5061
7TH LARGEST	419.0 5248	244.0 5211	469.0 5012	*10.0 5132	527.0 5083	492.0 5090	536.0 5094	514.0 5082
6TH LARGEST	420.0 5168	245.0 5020	473.0 5136	*10.0 5222	530.0 2017	496.0 5175	546.0 5147	518.0 5168
5TH LARGEST	*22.0 5105	247.0 5059	*75.0 5099	*11.0 5264	535.0 5222	497.0 5053	540.0 5110	519.0 5239
4TH LARGEST	424.0 5033	250.0 5093	475.0 5024	*10.0 5279	544.0 5059	532.0 5059	549.0 5181	520.0 5244
3RD LARGEST	429.0 5055	254.0 5217	475.0 5240	*10.0 5263	541.0 5056	544.0 5056	550.0 5194	521.0 5217
2ND LARGEST	435.0 5090	259.0 5264	476.0 5239	*10.0 5223	546.0 5244	560.0 5222	555.0 5222	520.0 5058
1ST LARGEST	440.0 5264	260.0 5058	481.0 5181	*13.0 5205	547.0 5093	573.0 5058	584.0 5058	530.0 5051
THE MEAN VALUE	358.25	217.67	*11.18	366.67	451.73	389.61	465.65	449.01
STD. DEVIATION	27.97	14.23	26.09	19.66	33.69	42.76	31.31	32.03
OFF/VARIATION	7.81	6.56	6.85	5.34	7.46	10.98	6.72	7.13
VETA ONE	*26	*12	*02	*10	*54	1.18	*71	*07
VETA TWO	2.93	2.76	2.82	2.71	2.91	*0.93	*0.26	2.65
(N-20)-AVG EST	327.95	217.03	416.13	366.56	*50.79	387.47	404.64	468.87
(N-20)-S.D.EST	28.11	14.46	26.31	19.98	34.70	40.75	31.66	32.96
PCT DIFF/MEANS	1.	1.	0.	1.	3.	5.	3.	0.
PCT DIF/ST DVS	-1.	-2.	-1.	-2.	-3.	5.	-1.	-3.
SIZE OF SAMPLE	287	287	287	287	287	287	287	287

BEST COPY

## STATISTICS FOR VARIABLES 48C THROUGH 58C

	48C WAIST FRO NT	51C SLEEVE IN SEAM	52C TSEAM	54C HEAD CIRC UMFERENCE	55C HEAD BREA OTH	56C HEAD LENG TH	57C PALM LENG TH	58C HAND BREA OTH
1ST SMALLEST	326.0 5253	369.0 5159	473.0 5159	216.0 5049	137.0 5172	16d.v 5068	90.0 5012	78.0 5226
2ND SMALLEST	326.0 5019	432.0 5015	504.0 5042	518.0 5019	138.0 5168	91.0 5049	91.0 5042	76.0 5068
3RD SMALLEST	343.0 5120	413.0 5042	510.0 5015	519.0 5184	139.0 5252	170.0 5294	93.0 5098	79.0 5180
4TH SMALLEST	344.0 5055	426.0 5223	516.0 5230	520.0 5066	139.0 5049	178.0 5260	94.0 5159	79.0 5042
5TH SMALLEST	345.0 5044	427.0 5106	521.0 5214	522.0 5194	140.0 5236	178.0 5163	95.0 5186	80.0 5008
6TH SMALLEST	346.0 5111	427.0 5011	523.0 5220	523.0 5168	144.0 5047	179.0 5102	96.0 5242	81.0 5184
7TH SMALLEST	348.0 5191	429.0 5286	525.0 5221	525.0 5220	141.0 5184	180.0 5015	96.0 5166	82.0 5176
8TH SMALLEST	350.0 5235	430.0 5208	525.0 5071	525.0 2142	141.0 5103	180.0 5019	97.0 5250	82.0 5134
9TH SMALLEST	352.0 5241	431.0 5233	526.0 5183	525.0 5042	141.0 5162	161.0 5220	97.0 5106	82.0 5127
XTH SMALLEST	352.0 5088	432.0 5211	526.0 5011	527.0 5221	141.0 5105	181.0 5182	97.0 5011	82.0 5121
*****								
XTH LARGEST	470.0 5641	535.0 5181	622.0 5121	589.0 5005	160.0 5179	208.0 5149	118.0 2158	97.0 5130
9TH LARGEST	470.0 5485	536.0 5051	655.0 5051	590.0 5123	161.0 5034	208.0 5234	119.0 5076	98.0 5001
8TH LARGEST	471.0 5211	537.0 5001	655.0 5216	590.0 5212	162.0 5017	208.0 5246	119.0 5086	98.0 5058
7TH LARGEST	471.0 5217	540.0 5021	658.0 5013	592.0 5255	162.0 5206	208.0 5277	119.0 5165	98.0 5074
6TH LARGEST	473.0 5168	546.0 5270	659.0 5279	592.0 5103	164.0 5113	209.0 5259	119.0 5269	98.0 5078
5TH LARGEST	477.0 5451	545.0 5130	660.0 5130	595.0 5267	164.0 5222	210.0 5134	120.0 5021	98.0 5208
4TH LARGEST	478.0 5239	546.0 5206	660.0 5181	596.0 5143	165.0 5037	211.0 5250	120.0 5057	98.0 5212
3RD LARGEST	478.0 5262	552.0 5067	661.0 5274	597.0 5099	165.0 5084	213.0 5236	120.0 5067	98.0 5244
2ND LARGEST	480.0 5192	552.0 5267	666.0 5217	601.0 5256	165.0 5117	213.0 5267	121.0 5136	99.0 5051
1ST LARGEST	490.0 5222	563.0 5013	669.0 5207	603.0 5006	167.0 5270	214.0 5007	121.0 5207	100.0 5009
THE MEAN VALUE	416.47	+32.64	587.73	566.67	150.55	194.38	117.51	89.23
STD. DEVIATION	36.30	27.25	32.23	16.26	5.37	7.32	5.79	4.29
COFF/VARIATION	7.36	9.65	5.49	2.94	3.56	3.01	2.39	4.80
VETA ONE	*.66	*.03	*.04	*.15	*.17	*.14	*.10	*.04
VETA TWO	2.91	3.31	3.10	3.01	3.34	3.63	2.86	2.64
(N=20)-AVG EST	*16.54	492.65	567.77	505.61	150.96	194.72	107.54	89.23
(N=20)-S.D.EST	36.56	26.77	32.03	16.26	5.36	6.01	5.67	4.42
PCT DIFF/MEANS	-6.	-6.	-6.	-1.	1.	-1.	-1.	0.
PCT DIFF/S.D.VS	-1.	2.	1.	-6.	3.	-1.	-1.	-3.
SIZE OF SAMPLE	287	267	267	207	207	237	207	297

## STATISTICS FOR VARIABLES 54L THRUH 69C

59C		60C		61C		62C		63C		64C		66C	
HAND CIRC UMFERENCE	HAND LENG TH	INSTEP LÉ NGTH	FOOT LENGTH	TH	FOOT LENGTH	TH	FOOT LENGTH	TH	HEEL-ANKL E CIRCUMF	FOOT BREÁ DTM	FOOT CIRC UMFERENCE	SPHYRION HEIGHT	
VALUE SBJCT	VALUE SBJCT	VALUE SBJCT	VALUE SBJCT	VALUE SBJCT	VALUE SBJCT	VALUE SBJCT	VALUE SBJCT	VALUE SBJCT	VALUE SBJCT	VALUE SBJCT	VALUE SBJCT	VALUE SBJCT	
1ST SMALLEST	181.0 5226	159.0 5042	168.0 5011	225.0 5642	285.0 5008	81.0 5220	215.0 5220	55.0 5105					
2ND SMALLEST	185.0 5184	163.0 5015	169.0 5127	234.0 5159	291.0 5042	81.0 5068	216.0 5042	60.0 5268					
3RD SMALLEST	186.0 5042	165.0 5008	170.0 5184	235.0 5068	279.0 5286	84.0 5042	226.0 5227	60.0 5216					
*TH SMALLEST	189.0 5068	166.0 2159	171.0 5213	236.0 5211	299.0 5176	82.0 5136	222.0 5068	60.0 5120					
5TH SMALLEST	190.0 5260	176.0 5106	171.0 5153	237.0 5260	301.0 5180	86.0 5227	223.0 5068	60.0 5089					
6TH SMALLEST	191.0 5638	171.0 5386	173.0 5274	240.0 5170	306.0 5199	87.0 5264	225.0 5264	60.0 5016					
7TH SMALLEST	193.0 5120	172.0 5256	173.0 5099	240.0 5127	307.0 5068	87.0 5260	226.0 5229	61.0 5070					
8TH SMALLEST	194.0 5227	172.0 5180	173.0 5086	240.0 5066	336.0 5238	88.0 5280	226.0 5166	61.0 5017					
9TH SMALLEST	194.0 5134	172.0 5011	174.0 5042	241.0 5156	338.0 5159	88.0 5164	229.0 5199	62.0 5160					
XTH SMALLEST	195.0 5203	173.0 5186	175.0 5047	242.0 5153	311.0 5226	89.0 5160	236.0 5176	62.0 5177					
*****													
XTH LARGEST	234.0 5156	207.0 5116	219.0 5093	29.0.0 5036	374.0 5038	110.0 5117	276.0 5060	85.0 5123					
9TH LARGEST	231.0 5078	207.0 5197	221.0 5429	290.0 5058	375.0 5264	110.0 5051	277.0 5078	85.0 5182					
8TH LARGEST	231.0 5123	208.0 5138	221.0 5257	292.0 5274	377.0 2013	110.0 5060	277.0 5094	86.0 5056					
7TH LARGEST	231.0 5248	208.0 5156	222.0 5423	295.0 5048	377.0 5029	110.0 5078	277.0 5208	86.0 5059					
6TH LARGEST	232.0 5451	208.0 5243	222.0 5458	295.0 5130	377.0 5058	111.0 5208	278.0 5136	86.0 5168					
5TH LARGEST	232.0 5244	209.0 5264	223.0 5551	295.0 5217	378.0 5029	110.0 5257	286.0 5058	86.0 5187					
4TH LARGEST	235.0 5122	210.0 5115	223.0 5269	292.0 5257	378.0 5027	111.0 5264	286.0 5264	87.0 5021					
3RD LARGEST	236.0 5058	210.0 5257	224.0 5048	296.0 5051	375.0 5269	112.0 5058	281.0 5051	87.0 5130					
2ND LARGEST	238.0 5139	213.0 5130	227.0 5274	296.0 5050	386.0 5201	114.0 5059	284.0 5003	89.0 5013					
1ST LARGEST	240.0 5149	217.0 5021	230.0 5464	296.0 5116	390.0 5217	115.0 5196	285.0 5269	89.0 5006					
THE MEAN VALUE													
STD. DEVIATION	211.14	190.01	197.00	207.08	346.22	99.17	251.54	73.03					
(N-20)-S.D.EST	9.98	9.80	11.79	13.33	17.04	5.62	12.85	6.13					
COFF/VARIATION	4.73	5.19	5.90	4.98	5.13	2.67	5.11	8.31					
VETA ONE	.08	-.13	.02	-.16	.07	-.12	.10	-.03					
VETA TWO	2.96	2.76	2.83	2.04	3.44	3.31	2.08	2.97					
(N-20)-AVG EST	211.07	190.08	197.03	267.73	346.22	99.23	251.56	73.05					
(N-20)-S.D.EST	10.02	10.09	11.92	15.27	17.38	5.52	12.94	6.15					
PCT DIFF/MEANS	6.	-1.	6.	-1.	-1.	-1.	-0.	-0.					
PCT DIF/ST DVS	-u.	-2.	-1.	-2.	j.	j.	-1.	-0.					
SIZE OF SAMPLE	287	286	286	287	287	286	287	286					

## STATISTICS FOR VARIABLES 291 THROUGH 301

291                   301

	WAIST HI / UMPHALION	MIUSHOULD ÉK HEIGHT	VALUE SUBJECT	VALUE SUBJECT
1ST SMALLEST	895.0	5038	528.0	5122
2ND SMALLEST	899.0	5042	537.0	5068
3RD SMALLEST	910.0	5159	546.0	5068
4TH SMALLEST	929.0	5011	540.0	5191
5TH SMALLEST	941.0	5015	552.0	5169
6TH SMALLEST	944.0	5070	553.0	5209
7TH SMALLEST	946.0	5101	553.0	5101
8TH SMALLEST	947.0	5230	559.0	5042
9TH SMALLEST	947.0	5086	564.0	5089
XTH SMALLEST	949.0	5170	562.0	5057
*****				
XTH LARGEST	1153.0	5017	672.0	5079
9TH LARGEST	1155.0	5016	674.0	5125
8TH LARGEST	1159.0	5267	690.0	5239
7TH LARGEST	1161.0	5021	682.0	5069
6TH LARGEST	1161.0	5257	683.0	5106
5TH LARGEST	1161.0	5204	693.0	5217
4TH LARGEST	1173.0	5434	666.0	5056
3RD LARGEST	1175.0	5013	687.0	5085
2ND LARGEST	1185.0	5079	689.0	5267
1ST LARGEST	1199.0	5051	692.0	5051

160

THE MEAN VALUE      1054.70      613.69  
 STD. DEVIATION      32.67      30.28  
 COFF/VARIATION      4.99      4.93  
 VETA ONE      -.00      .00  
 VETA TWO      3.11      2.89

(N=20)-AVG EST      1055.67      613.74  
 (N=20)-S.D.EST      52.25      30.38

PCT DIFF/MEANS      -1.      0.  
 PCT DIF/ST DVS      1.      -0.  
 SIZE OF SAMPLE      207      207

A SUMMARY OF THE MATERIAL ALREADY PRESENTED EITHER ON THE PRECEDING PAGES OR ON THE PUNCHED RANGE CARDS

NO.	VARIABLE NAME	MEAN	STD DEV	V-I	V-II	V	THE RANGE CARD VALUES--					
							DELS	MIN	MAX	AVG	INTV1	INTV2
1C	WEIGHT	1560.16	242.16	.61	2.94	12.5%	2.7	-1.5	287	1025.0	01017.5	2338.0
2C	STATURE	1740.74	68.19	.01	3.94	3.9%	-.1	4.1	267	1530.0	01520.5	1974.0
4C	AXILLA HEIGHT	1312.44	58.89	-.08	3.25	4.5%	-.6	1.6	287	1133.0	01122.5	197.0
2T	SUPRASTERNALE HEIGHT	1426.99	60.85	-.01	3.37	4.3%	-.0	2.8	287	1246.0	01237.5	1427.0
5C	CHEST HEIGHT	1274.26	56.71	-.04	3.22	4.5%	-.2	1.6	287	1103.0	01097.5	1466.0
3T	SUBSTERNAL HEIGHT	1225.68	56.94	-.15	3.38	4.5%	-.9	1.6	287	1038.0	01037.5	1402.0
4T	ELBOW HEIGHT	1094.02	50.54	-.03	3.28	4.6%	-.1	1.8	287	945.0	037.5	1264.0
5T	KNUCKLE HEIGHT	755.07	41.15	.05	3.26	5.4%	.1	1.3	287	624.0	617.5	895.0
6C	WAIST HT/NATURAL	1041.18	57.46	.04	2.67	5.5%	-.4	3.0	287	906.0	097.5	1192.0
BC	BUTTOCK HEIGHT	694.00	50.69	-.01	3.19	5.7%	-.1	2.8	287	755.0	747.5	1054.0
7T	GLUTEAL FURROW HT	803.71	44.17	.06	3.16	5.5%	-.1	2.2	287	661.0	657.5	946.0
8T	TIBIALE HEIGHT	463.14	27.68	-.14	3.18	5.7%	-.1	2.7	283	404.0	402.5	558.0
9T	ACROMION-RODIALE	337.42	18.23	.01	3.05	5.4%	-.3	4.4	287	279.0	278.5	393.0
10T	RADIALE-STYLION	268.41	15.75	.03	3.25	5.9%	-.1	1.6	287	216.0	215.5	315.0
11C	SITTING HEIGHT	893.43	36.32	.05	3.34	4.1%	-.1	2.3	287	781.0	777.5	1002.0
12C	EYE HEIGHT/SIT	774.17	33.92	.01	3.23	4.2%	-.4	1.6	287	668.0	667.5	774.0
13C	SHOLDER-ELBOW LGTH	363.16	18.53	.03	3.66	5.4%	-.2	0	287	312.0	311.5	418.0
11T	ELBOW-CTR GRIP LGT	349.72	19.63	-.04	3.44	5.6%	-.3	3.6	287	283.0	281.5	408.0
14C	ELBOW-FINGER TIP LG	77.71	44.72	-.05	3.33	5.2%	-.2	2.1	287	400.0	398.5	546.0
15C	KNEE HEIGHT/SIT	550.96	30.23	-.04	3.06	5.5%	-.1	2.1	287	465.0	462.5	632.0
16C	POPITEAL HEIGHT	442.73	27.16	-.06	3.02	5.1%	-.7	0.8	287	376.0	367.5	520.0
17C	BUTTOCK-KNEE LENGTH	607.81	30.75	-.03	3.01	5.1%	-.3	2.87	524.0	522.5	703.0	
18C	CHEST DEPTH	216.81	19.97	.53	2.64	9.2%	-.2	2.1	287	175.0	173.5	272.0
19C	MAIST DEPTH	202.88	19.52	.98	4.04	11.4%	2.5	2.80	160.0	158.0	288.0	
16T	BILATERAL BREATH	394.58	19.50	-.13	2.82	5.0%	-.3	1.3	287	336.0	335.5	449.0
25C	SHOULDER CIRCUMFER	1109.22	61.42	.29	2.86	5.5%	1.2	1.7	287	953.0	947.5	130.0
27C	CHEST CIRCUMFER	929.03	66.01	.56	2.83	7.1%	2.7	2.2	287	787.0	777.5	1112.0
29C	WAIST CIRCUMPHALI	786.76	80.40	3.06	3.97	10.2%	4.9	1.2	287	634.0	627.5	1082.0
19T	WAIST CIRCUMPHALI	768.75	62.94	1.11	4.58	10.5%	5.2	2.6	287	634.0	627.5	1082.0
30C	HIP CIRCUMFER	951.43	60.43	.77	3.10	6.4%	3.6	2.6	287	836.0	837.5	1138.0
23T	BICEPS CIRC, RLXD	291.62	27.68	.24	2.75	9.5%	1.3	1.6	287	220.0	217.5	381.0
33C	BICEPS CIRC, FLXO	313.78	27.14	.13	2.65	8.6%	4.4	2.7	287	238.0	237.5	390.0
39C	CALF CIRCUMFER	358.25	27.97	.28	2.93	7.8%	1.1	-.5	287	265.0	262.5	440.0
40C	ANKLE CIRCUMFER	217.07	14.23	.12	2.76	6.6%	5	1.6	287	180.0	179.5	260.0
42C	INTERSCY BACK	410.18	28.09	.62	2.82	6.8%	2	-.7	287	332.0	327.5	481.0
43C	INTERSCY FRONT	366.67	19.60	.10	2.71	5.3%	6	1.9	287	317.4	315.5	413.0
44C	BACK ARC, CHEST	451.73	33.69	.59	2.81	7.5%	2.7	2.9	287	378.0	377.5	547.0
45C	BACK ARC, HAIST	389.61	42.76	1.18	4.95	11.0%	5.2	4.9	287	312.0	307.5	573.0
46C	BACK ARC, HIP	465.65	31.31	.71	3.26	9.7%	3.3	1.1	287	395.0	392.0	584.0
47C	WAIST BACK	449.01	32.03	.07	2.65	7.1%	4	2.8	287	377.0	372.5	530.0
48C	WAIST FRONT	410.47	34.30	.03	2.91	7.4%	-.2	-.9	287	326.0	322.5	490.0
51C	SLEEVE INSEAM	482.64	27.25	.03	3.31	5.6%	-.1	1.8	287	389.0	387.5	563.0
52C	SLEEVE OUTSEAM	587.73	32.28	.04	3.10	5.5%	-.1	1.6	287	473.0	472.5	669.0
24C	HEAD CIRCUMFER	560.07	16.26	-.15	3.01	2.9%	-.9	-.1	287	516.0	515.0	603.0
55C	HEAD BREADTH	150.55	53.37	.17	3.64	3.6%	1.5	2	287	137.0	136.5	151.0
56C	HEAD LENGTH	194.68	7.02	-.14	3.63	3.0%	-.9	3.4	287	160.0	167.5	214.0
57C	PALM LENGTH	107.51	5.79	-.16	2.66	5.4%	-.5	1.3	287	90.0	89.5	121.0
58C	HAND BREADTH	89.23	6.29	.44	2.64	4.8%	0	3.0	287	78.0	77.5	100.0
59C	HAND CIRCUMFER	211.12	9.98	.08	2.96	4.7%	-.4	-.3	287	181.0	179.5	240.0
60C	HAND LENGTH	190.01	9.86	-.13	2.76	5.2%	-.7	2.4	287	159.0	157.5	217.0

BEST AVERAGE

A SUMMARY OF THE MATERIAL ALREADY PRESENTED EITHER ON THE PRECEDING PAGES OR ON THE PUNCHED RANGE CARDS

NO.	VARIABLE NAME	MEAN	STD DEV	V-I	V-II	V	JELM	DELS	---THE RANGE CARD VALUES---			
									N	MINIMUM	MAX	AVG
61C	INSTEP LENGTH	197.06	11.79	.012	2.63	6.00%	.2	-1.1	266	168.0	167.5	230.0
62C	FOOT LENGTH	267.58	13.33	-.16	2.80	5.00%	-1.2	-1.8	286	225.0	223.2	296.0
63C	HEEL-ANKLE CIRCUMF	346.22	17.44	.07	3.14	5.12	-.4	.3	287	285.4	284.5	390.0
64C	FOOT BREADTH	99.17	5.62	-.12	3.31	5.72	-1.6	1.9	266	86.5	86.5	115.0
66C	FOOT CIRCUMFERENCE	261.54	12.85	.44	2.68	5.12	-.1	-.7	287	215.6	213.5	285.0
69C	SPHYGMON HEIGHT	73.83	6.13	-.04	2.97	8.32	-.3	-.2	286	55.4	54.5	94.0
29T	WAIST HT/OMPHALION	1054.73	52.67	-.06	3.11	5.02	-.7	.8	287	695.4	687.5	1199.6
36T	MIDSHOULDER HEIGHT	613.69	30.26	+.06	2.69	+.92	.5	-.3	287	526.0	527.3	692.0

BEST AVAILABLE COPY

## C-2. XVAL TABLES FOR THE WORKSPACE SUBSERIES

STATISTICS FOR VARIABLES 1 THROUGH 8

DIRECT APPRAISAL

OVERHEAD REACH HT		FUNCTIONA L REACH		FUNCT REA CH EXTEND		OVERHEAD REACH SIT		FUNCTIONA L LEG LN		WEIGHT STATURE		OVERHEAD REACH BRD		
VALUE	SBJCT	VALUE	SBJCT	VALUE	SBJCT	VALUE	SBJCT	VALUE	SBJCT	VALUE	SBJCT	VALUE	SBJCT	
1ST SMALLEST	1855.0	5159	691.0	5221	765.0	5159	1189.0	5159	1052.0	5159	1075.0	5069	1612.4	5159
2ND SMALLEST	1953.0	5168	733.0	5170	835.0	5135	1242.0	5124	1192.0	5148	1243.0	5184	1617.0	5068
3RD SMALLEST	1965.0	5170	706.0	5159	835.0	5135	1242.0	5124	1194.0	5194	1258.0	5199	1641.0	5120
4TH SMALLEST	1978.0	5120	712.0	5200	836.0	5221	1267.0	5170	1101.0	5120	1260.0	5207	1680.0	5221
5TH SMALLEST	1981.0	5077	720.0	5111	838.0	5208	1267.0	5077	1192.0	5221	1265.0	5120	1682.0	5170
6TH SMALLEST	2001.0	5102	722.0	5135	839.0	5197	1285.0	5112	1135.0	5174	1273.0	5176	1685.0	5077
7TH SMALLEST	2003.0	5221	733.0	5120	841.0	5111	1287.0	5142	1109.0	5283	1283.0	5159	1689.0	5146
8TH SMALLEST	2005.0	5200	736.0	5078	845.0	5200	1294.0	5161	1109.0	5176	1295.0	5104	1691.0	5283
9TH SMALLEST	2029.0	5176	737.0	5170	946.0	5133	1298.0	5112	1113.0	5107	1335.0	5142	1693.0	5194
XTH SMALLEST	2031.0	5148	738.0	5256	850.0	5136	1307.0	5179	1115.0	5252	1343.0	5233	1706.0	5252
*****														
XTH LARGEST	2290.0	5123	857.0	5348	1164.0	5278	1446.0	5048	1204.0	5250	1919.0	5198	1862.0	5232
9TH LARGEST	2296.0	5050	866.0	5450	1107.0	5245	1447.0	5232	1267.0	5123	1925.0	5156	1907.0	5050
8TH LARGEST	2296.0	5138	863.0	5094	1107.0	5267	1447.0	5259	1263.0	5138	1928.0	5094	1867.0	5270
7TH LARGEST	2301.0	5156	864.0	5270	1012.0	5244	1450.0	5084	1258.0	5236	1950.0	5232	1984.0	5067
6TH LARGEST	2303.0	5167	868.0	5245	1013.0	5118	1450.0	5167	1271.0	5270	1950.0	5269	1890.0	5138
5TH LARGEST	2313.0	5244	869.0	5185	1120.0	5231	1457.0	5155	1279.0	5225	2020.0	5244	1897.0	5048
4TH LARGEST	2313.0	5048	874.0	5123	1120.0	5277	1490.0	5244	1291.0	5243	2030.0	5110	1897.0	5187
3RD LARGEST	2326.0	5270	876.0	5278	1124.0	5048	1503.0	5156	1281.0	5273	2075.0	5095	1901.0	5257
2ND LARGEST	2338.0	5257	892.0	5259	1041.0	5056	1515.0	5270	1315.0	5187	2173.0	5083	1905.0	5244
1ST LARGEST	2392.0	5267	882.0	5267	1145.0	5367	1538.0	5267	1316.0	5257	2263.0	5222	1964.0	5267
THE MEAN VALUE	2151.05	797.51	916.64	1500.79	1185.51	1290.98	1779.48	20.55	52.38	218.26	52.55	384.99	20.55	
STD. DEVIATION	94.16	41.19	52.21	58.50	52.38	44.42	13.72	5.34	4.42	•11	•59	•06	•09	
COFF/VARIATION	4.38	5.16	5.63	4.27	2.7	-0.4	2.65	2.83	3.82	3.17	3.26	3.26	2.83	
VETA ONE	-0.09	-0.17	2.87	2.74	2.07	2.07	2.07	2.07	2.07	2.07	2.07	2.07	2.07	
VETA TWO	3.16	2.87	2.87	2.87	2.87	2.87	2.87	2.87	2.87	2.87	2.87	2.87	2.87	
(N-2) - AVG EST	2151.78	798.21	916.76	1368.73	1186.36	1278.73	1779.31	384.99	55.17	220.28	60.96	20.65	20.65	
(N-2) - S.D.EST	93.48	40.31	53.13	54.64	55.17	55.17	55.17	55.17	55.17	55.17	55.17	55.17	55.17	
PCT DIFF/MEANS	-1.	-2.	-2.	-2.	-2.	-2.	-2.	-2.	-2.	-2.	-2.	-2.	-2.	
PCT DIF/ST DVS	1.	2.	2.	2.	2.	2.	2.	2.	2.	2.	2.	2.	2.	
SIZE OF SAMPLE	106	106	106	106	106	106	106	106	106	106	106	106	106	

## STATISTICS FOR VARIABLES 9 THROUGH 16

## DEPTT

DATA FROM A MENS WORK SPACE

	9 BENT TORS O HEIGHT 0 VALUE	10 BENT TORS O BREATH 0 SUBJECT	11 KNEELING HEIGHT VALUE	12 KNEELING LEG LENGTH VALUE	13 BENT KNEE HT SUBJECT VALUE	14 HORI LG K NEES BENT DE	15 WEIGHT-NU SUBJCT	16 STATURE-N UDE
1ST SMALLEST	120.3.0	5136.0	5142.0	1172.0	5068.0	572.0	5065.0	417.0
2ND SMALLEST	1231.0	5283.0	5184.0	1179.0	5120.0	597.0	5159.0	+36.0
3RD SMALLEST	1236.0	5221.0	5105.0	1187.0	5159.0	617.0	5210.0	+30.0
4TH SMALLEST	1237.0	5252.0	5249.0	1221.0	5150.0	623.0	5221.0	+35.0
5TH SMALLEST	1257.0	5218.0	473.0	2368.0	1226.0	5283.0	036.0	+41.0
6TH SMALLEST	1258.0	5147.0	439.0	5120.0	1226.0	5177.0	041.0	+41.0
7TH SMALLEST	1262.0	5134.0	412.0	5278.0	1220.0	5194.0	643.0	+49.0
8TH SMALLEST	1264.0	5179.0	418.0	5143.0	1232.0	5271.0	645.0	+51.0
9TH SMALLEST	1274.0	5219.0	419.0	5215.0	1232.0	5239.0	648.0	+51.0
XTH SMALLEST	1275.0	5277.0	419.0	5208.0	1232.0	5239.0	049.0	+56.0
*****								
1ST LARGEST	1470.0	5217.0	474.0	5214.0	1355.0	5270.0	742.0	5269.0
2ND LARGEST	1478.0	5155.0	475.0	5198.0	1361.0	5138.0	747.0	5244.0
3RD LARGEST	1483.0	5267.0	477.0	5065.0	1361.0	5137.0	749.0	5244.0
4TH LARGEST	1493.0	5138.0	436.0	5048.0	1361.0	5232.0	753.0	5048.0
5TH LARGEST	1493.0	5135.0	493.0	5094.0	1372.0	5146.0	753.0	5236.0
6TH LARGEST	1501.0	5251.0	434.0	5269.0	1373.0	5257.0	753.0	5232.0
7TH LARGEST	1514.0	5134.0	499.0	5264.0	1377.0	5267.0	752.0	5237.0
8TH LARGEST	1519.0	5067.0	492.0	5114.0	1377.0	5085.0	761.0	5067.0
9TH LARGEST	1522.0	5244.0	498.0	5083.0	1396.0	5244.0	762.0	5267.0
1ST LARGEST	1527.0	5187.0	518.0	5222.0	1413.0	5267.0	789.0	5257.0
*****								
THE MEAN VALUE	1372.76	447.22	1241.83	693.53	490.57	1011.99	1532.42	1740.88
STD. DEVIATION	72.74	22.48	45.55	36.39	26.87	67.07	216.74	64.36
COFF/VARIATION	5.30	5.03	3.53	5.25	5.48	4.10	14.14	3.70
VETA ONE	•.06	•.15	•.02	-•.06	-•.06	•.20	•.56	•.04
VETA TWO	2.37	4.03	2.97	3.57	2.68	2.29	3.17	3.22
(N-2) -AVG EST	1372.28	447.51	1291.37	693.39	490.71	1610.17	1521.10	1740.54
(N-2) -S.D. EST	77.94	23.12	45.61	35.36	27.39	72.63	217.27	62.79
PCT DIFF/M-EA VS	1.	-1.	1.	-1.	-1.	3.	5.	0.
PCT DIFF/ST DVS	-7.	12.	-6.	3.	-2.	-8.	-0.	2.
SIZE OF SAMPLE	166	106	106	106	106	106	106	106

MEN'S ARRAY SUB-SERIES WORK SPACE

A SUMMARY OF THE MATERIAL ALREADY PRESENTED EITHER ON THE PRECEDING PAGES OR ON THE PUNCHED RANGE CARDS

NO.	VARIABLE NAME	MEAN	STD DEV	V-I	V-II	V	DELM	DELS	N	MINIMUM	MAX	Avg	INTV1	INTV2	CF1	CF2		
									MIN	MAX	Avg	INTV1	INTV2	CF1	CF2			
1	OVERHEAD REACH HT	2151.35	94.16	-0.9	3.16	4.4%	-0.8	*7	106	1055.0	1042.5	52.392	0.02158	0.0	15.00	*10000	*39370	
2	FUNCTIONAL REACH	797.51	41.18	-0.17	2.87	5.2%	-1.7	2.2	106	691.0	687.5	882.0	0.798	0	5.00	*10000	*39370	
3	FUNCT REACH EXTEND	918.64	52.21	-0.27	2.74	5.7%	-3.5	-1.7	106	785.0	777.5	845.0	0.919	0	10.00	*10000	*39370	
4	OVERHEAD REACH SIT	1368.79	58.50	-0.4	3.82	4.3%	*1	7.1	136	1189.0	1187.5	1538.0	0.01369	0	15.00	*10000	*39370	
5	FUNCTIONAL LEG LN	1185.51	52.38	-0.19	2.65	4.4%	-2.1	-5.1	106	1052.0	1047.5	51316.0	0.11860	0	10.00	*10000	*39370	
6	HEIGHT	1590.98	218.26	-0.59	3.17	13.7%	5.6	*9	106	1075.0	1072.5	52263.0	0.01591	0	50.00	25.00	*10000	*39370
7	STATURE	1779.48	62.55	-0.16	3.26	3.5%	*8	2.6	106	1612.0	1616.0	0.075964	0.01779	0	15.00	10.00	*10000	*39370
8	OVERHEAD REACH BRD	386.99	20.55	-0.69	2.83	5.3%	-0	-5	106	336.0	335.5	441.0	0.385	0	5.00	3.00	*10000	*39370
9	BENT TORSO HEIGHT	1372.76	72.74	-0.0	2.37	5.3%	*6	-6.7	106	1203.0	1197.5	51527.0	0.01373	0	15.00	10.00	*10000	*39370
10	BENT TORSO BREADTH	447.22	22.48	-0.15	4.03	5.0%	-1.5	11.7	106	378.0	377.5	516.0	0.487	0	5.00	3.00	*10000	*39370
11	KNEELING HEIGHT	1291.88	45.55	-0.02	2.97	3.5%	1.1	*1	106	1172.0	1167.5	51413.0	0.01290	0	10.00	5.00	*10000	*39370
12	KNEELING LEG LENGTH	693.58	36.39	-0.27	3.57	5.2%	-1.1	3.1	106	572.0	567.5	789.0	0.696	0	10.00	5.00	*10000	*39370
13	BENT KNEE HT SUPIN	490.57	26.87	-0.06	2.68	3.5%	*5	-1.9	106	417.0	416.5	549.0	0.490	0	5.00	3.00	*10000	*39370
14	HORI LG KNEES BENT	1611.99	67.07	-0.20	2.29	4.2%	2.5	-7.6	106	1486.0	1477.5	51751.0	0.01612	0	10.00	*10000	*39370	
15	HEIGHT-NUDE	1532.42	216.74	-0.56	3.17	14.1%	5.2	*2	106	1025.0	1022.5	52203.0	0.01532	0	50.00	25.00	*10000	*39370
16	STATURE-NUDE	1740.68	64.36	-0.64	3.22	3.7%	*4	2.3	106	1562.0	1557.5	51930.0	0.01741	0	15.00	10.00	*10000	*39370

BEST AVAILABLE COPY

C-3. XVAL TABLES FOR THE HEAD AND FACE SUBSERIES

## STATISTICS FOR VARIABLES

## DIRECT

	2	3	4	5	6	7	8
SAGITTAL	BIT-ON-CO RUNDL ARC	BIT-ON-FR ONTAL ARC	BIT-UN-M ENTON ARC	BIT-SUBMA NDL ARC	GLABELLA TO WALL	SELLION T O WALL	PRONASALE TO WALL
1ST SMALLEST	316.0 5182	3271	285.0 5163	283.0 5163	259.0 5162	179.0 5134	177.0 5134
2ND SMALLEST	314.0 5221	3252	270.0 5163	266.0 5163	266.0 5163	161.0 5165	179.0 5185
3RD SMALLEST	317.0 5268	3220	272.0 5241	266.0 5241	204.0 5082	182.0 5201	207.0 5241
4TH SMALLEST	320.0 5119	316.0 5157	274.0 5215	247.0 5215	206.0 5235	183.0 5648	207.0 5261
5TH SMALLEST	327.0 5199	316.0 5162	275.0 5162	267.0 5162	205.0 5237	184.0 5227	208.0 5226
6TH SMALLEST	328.0 5209	321.0 5210	276.0 5222	290.0 5222	207.0 5204	182.0 5203	210.0 5185
7TH SMALLEST	330.0 5182	322.0 5230	276.0 5153	291.0 5077	207.0 5097	182.0 5225	212.0 5199
8TH SMALLEST	330.0 5160	323.0 5245	276.0 5237	292.0 5160	206.0 5165	185.0 5199	212.0 5170
9TH SMALLEST	330.0 5189	324.0 5185	280.0 5224	292.0 5089	205.0 5163	185.0 5089	212.0 5148
XTH SMALLEST	331.0 5226	324.0 5162	280.0 5201	292.0 5201	209.0 5215	187.0 5259	213.0 5235
**							
1ST LARGEST	368.0 5244	329.0 5126	368.0 529.0	327.0 5240	329.0 5214	207.0 5234	204.0 5211
2TH LARGEST	369.0 5210	329.0 5244	369.0 511.0	328.0 511.0	305.0 5221	206.0 5269	205.0 5209
3TH LARGEST	370.0 5258	306.0 5061	310.0 5234	320.0 5114	305.0 5257	206.0 5277	205.0 5256
7TH LARGEST	373.0 5234	301.0 5262	310.0 5250	320.0 5201	309.0 5217	209.0 5164	205.0 5227
6TH LARGEST	374.0 5192	301.0 5277	310.0 5269	320.0 5232	307.0 5222	209.0 5250	207.0 5234
7TH LARGEST	379.0 5116	301.0 5279	312.0 5214	332.0 5198	308.0 5081	210.0 5261	206.0 5277
8TH LARGEST	380.0 5270	302.0 5169	315.0 5200	334.0 5192	309.0 5193	211.0 5258	209.0 5231
9TH LARGEST	383.0 5269	305.0 5251	315.0 5277	332.0 5214	308.0 5234	211.0 5273	233.0 5126
2ND LARGEST	386.0 5267	309.0 5269	319.0 5146	340.0 5261	309.0 5274	215.0 5267	233.0 5231
13TH LARGEST	388.0 5164	312.0 5232	317.0 5232	342.0 5217	310.0 5192	217.0 5261	243.0 5164
MEAN VALUE	348.0 515	341.19	293.13	310.96	266.25	195.07	221.96
STD. DEVIATION	14.99	12.05	16.71	12.59	12.64	7.15	7.49
COFF/VARIATION	*.31	5.71	3.02	4.18	*.49	3.05	3.37
VETA ONE	*.12	-.14	-.03	-.12	.04	.37	.07
VETA TWO	3.74	2.62	2.74	2.39	2.20	3.42	3.08
(N-2) - AVG EST	347.52	341.35	293.09	311.16	250.13	195.07	221.96
(N-2) - S.D. EST	13.91	13.07	16.78	14.43	14.43	9.10	7.52
PCT DIFF/MEANS	*.	-1.	0.	-1.	3.	3.	0.
PCT DIFF/ST DVS	6.	-3.	-1.	-6.	-11.	12.	-6.
SIZE OF SAMPLE	102	162	162	102	102	102	162

MEN'S ARMY SUB-SERIES HEAD AND FACE

## STATISTICS FOR VARIABLES 9 THROUGH 16

9 SUBNASCAL	10 LIP PROT	11 MENTIN TO US'N-WALL	12 EUTOCANTH	13 TRAGION T	14 BITRAGION	15 HEAD 11/1	16 ECTOCANTH
TO WALL	WALL	US-WALL	US-WALL	O MALL	BRE-AUTH	RAGN-VLR	US-VERTEX
VALUE SUBJCT	VALUE SUBJCT	VALUE SUBJCT	VALUE SUBJCT	VALUE SUBJCT	VALUE SUBJCT	VALUE SUBJCT	VALUE SUBJCT
1ST SMALLEST	192.6 5194	188.0 5241	176.0 5241	156.0 5199	82.0 5199	121.0 5162	115.0 5268
2ND SMALLEST	193.0 5241	190.0 5261	182.0 5194	158.0 5186	88.0 5158	123.0 5266	95.0 5065
3RD SMALLEST	193.0 5220	191.4 5220	185.0 5220	106.0 5220	69.0 5194	129.0 5072	122.0 5257
4TH SMALLEST	194.0 5201	194.0 5240	185.0 5140	102.0 5140	90.0 5268	125.0 5259	122.0 5282
5TH SMALLEST	196.6 5220	195.4 5220	187.0 5186	103.0 5220	91.0 5145	125.0 5187	122.0 5089
6TH SMALLEST	196.6 5199	195.0 5170	187.0 5135	165.0 5211	93.0 5223	122.0 5073	123.0 5271
7TH SMALLEST	196.6 5170	195.0 5135	187.0 5135	165.0 5100	93.0 5208	125.0 5082	123.0 5257
8TH SMALLEST	196.6 5136	196.0 5199	188.0 5267	163.0 5145	93.0 5201	120.0 5201	123.0 5245
9TH SMALLEST	199.0 5146	198.0 5194	188.0 5136	104.0 5266	93.0 5182	126.0 5105	123.0 5185
XTH SMALLEST	199.0 5145	197.0 5145	188.0 5111	104.0 5105	94.0 5192	127.0 5185	123.0 5141
*****							
9TH LARGEST	219.0 5216	222.0 5231	218.0 5057	185.0 5065	115.0 5245	142.0 5232	143.0 5064
9TH LARGEST	219.0 5277	223.0 5257	219.0 5231	180.0 5126	114.0 5130	143.0 5168	144.0 5208
9TH LARGEST	220.0 5231	224.0 5231	220.0 5126	187.0 5064	114.0 5191	143.0 5224	145.0 5066
7TH LARGEST	222.0 5216	225.0 5198	222.0 5126	187.0 5226	114.0 5269	143.0 5234	123.0 5241
6TH LARGEST	223.0 5065	226.0 5216	222.0 5198	168.0 5258	115.0 5126	144.0 5249	145.0 5226
5TH LARGEST	223.0 5184	226.0 5084	223.0 5030	188.0 5277	110.0 5256	145.0 5121	124.0 5192
4TH LARGEST	223.0 5267	230.0 5065	225.0 5065	190.0 5269	117.0 5274	140.0 5233	146.0 5168
3RD LARGEST	227.0 5270	235.0 5279	226.0 5279	190.0 5274	110.0 5065	147.0 5231	146.0 5270
2ND LARGEST	230.0 5279	236.0 5273	230.0 5273	195.0 5661	119.0 5267	149.0 5055	151.0 5234
1ST LARGEST	233.0 5084	239.0 5064	236.0 5064	195.0 5267	120.0 5061	149.0 5191	154.0 5232
INC MEAN VALUE	208.66	209.69	202.16	175.02	103.23	135.05	133.88
STD. DEVIATION	7.63	10.03	11.13	7.40	7.13	5.68	6.79
COFF/VARIATION	3.75	4.76	5.50	4.27	6.91	4.36	5.07
VETA ONE	*.36	*.21	*.45	*.12	*.35	*.04	*.03
VETA TWO	.347	.329	.309	.312	.309	2.03	3.47
(N-2u)-AVG EST	206.44	208.56	201.54	174.91	103.21	135.09	133.88
(N-2u)-S.D.EST	7.22	9.79	11.13	7.00	6.99	6.09	6.11
PCT DIFF/MEANS	3.	5.	6.	2.	1.	-1.	0.
PCT DIF/ST DVS	8.	2.	-6.	7.	2.	-3.	11.
SIZE OF SAMPLE	102	102	102	102	102	102	102

MEN'S ARMY SUB-SERIES HEAD AND FACE

## STATISTICS FOR VARIABLES 17 THROUGH 24

	17	18	19	20	21	22	23	24
GLABELLA TO VERTEX	SÉLLION T U VERTEX	PRONASALÉ TO VERTÉX	SUBNASALÉ TO VERTÉX	STOMION T U VERTEX	MÉNION TO VERTEX	FACE ENG	TH ENG	ORINION-M ENTON
VALUE SUBJECT								
LST SMALLEST 53.0 52.62	LST SMALLEST 76.0 52.66	LST SMALLEST 169.0 51.96	LST SMALLEST 142.0 51.96	LST SMALLEST 51.96	LST SMALLEST 144.0 51.96	LST SMALLEST 142.0 51.96	LST SMALLEST 142.0 51.96	LST SMALLEST 142.0 51.96
2ND SMALLEST 64.0 52.08	2ND SMALLEST 79.0 52.13	2ND SMALLEST 112.0 52.06	2ND SMALLEST 125.0 52.06	2ND SMALLEST 52.06	2ND SMALLEST 135.0 52.06	2ND SMALLEST 144.0 52.06	2ND SMALLEST 166.0 52.24	2ND SMALLEST 166.0 52.71
3RD SMALLEST 64.0 51.98	3RD SMALLEST 86.0 52.79	3RD SMALLEST 412.0 50.9	3RD SMALLEST 126.0 50.9	3RD SMALLEST 50.9	3RD SMALLEST 120.0 50.89	3RD SMALLEST 144.0 51.82	3RD SMALLEST 157.0 51.7	3RD SMALLEST 167.0 52.27
4TH SMALLEST 64.0 51.00	4TH SMALLEST 86.0 50.72	4TH SMALLEST 115.0 52.59	4TH SMALLEST 123.0 52.59	4TH SMALLEST 52.59	4TH SMALLEST 122.0 52.59	4TH SMALLEST 144.0 51.82	4TH SMALLEST 157.0 51.7	4TH SMALLEST 166.0 51.63
5TH SMALLEST 62.0 52.43	5TH SMALLEST 81.0 52.45	5TH SMALLEST 115.0 51.62	5TH SMALLEST 134.0 51.62	5TH SMALLEST 51.62	5TH SMALLEST 132.0 51.62	5TH SMALLEST 144.0 51.62	5TH SMALLEST 157.0 51.62	5TH SMALLEST 169.0 51.62
6TH SMALLEST 60.0 51.91	6TH SMALLEST 82.0 51.6	6TH SMALLEST 117.0 51.1	6TH SMALLEST 134.0 51.1	6TH SMALLEST 51.1	6TH SMALLEST 132.0 51.02	6TH SMALLEST 144.0 51.02	6TH SMALLEST 157.0 51.04	6TH SMALLEST 171.0 51.04
7TH SMALLEST 60.0 51.82	7TH SMALLEST 82.0 51.6	7TH SMALLEST 117.0 50.7	7TH SMALLEST 133.0 50.7	7TH SMALLEST 50.7	7TH SMALLEST 132.0 50.7	7TH SMALLEST 144.0 50.82	7TH SMALLEST 157.0 52.24	7TH SMALLEST 171.0 51.09
8TH SMALLEST 67.0 52.59	8TH SMALLEST 92.0 52.65	8TH SMALLEST 112.0 52.65	8TH SMALLEST 133.0 52.65	8TH SMALLEST 52.65	8TH SMALLEST 125.0 52.65	8TH SMALLEST 144.0 50.84	8TH SMALLEST 157.0 52.34	8TH SMALLEST 172.0 51.82
9TH SMALLEST 67.0 52.65	9TH SMALLEST 92.0 52.65	9TH SMALLEST 112.0 52.65	9TH SMALLEST 133.0 52.65	9TH SMALLEST 52.65	9TH SMALLEST 125.0 52.65	9TH SMALLEST 144.0 50.84	9TH SMALLEST 157.0 52.34	9TH SMALLEST 172.0 51.82
10TH SMALLEST 66.0 52.67	10TH SMALLEST 83.0 52.57	10TH SMALLEST 119.0 54.82	10TH SMALLEST 133.0 54.82	10TH SMALLEST 54.82	10TH SMALLEST 121.0 54.82	10TH SMALLEST 144.0 50.84	10TH SMALLEST 157.0 50.84	10TH SMALLEST 174.0 52.67
*****	*****	*****	*****	*****	*****	*****	*****	*****
XTH LARGEST 92.0 52.52	XTH LARGEST 110.0 52.52	XTH LARGEST 447.0 50.60	XTH LARGEST 126.0 50.60	XTH LARGEST 50.60	XTH LARGEST 127.0 50.73	XTH LARGEST 144.0 50.60	XTH LARGEST 166.0 50.60	XTH LARGEST 195.0 52.33
YTH LARGEST 92.0 52.68	YTH LARGEST 111.0 52.68	YTH LARGEST 51.48	YTH LARGEST 217.0 51.48	YTH LARGEST 51.48	YTH LARGEST 129.0 50.66	YTH LARGEST 137.0 50.66	YTH LARGEST 144.0 50.66	YTH LARGEST 166.0 52.77
ZTH LARGEST 92.0 51.09	ZTH LARGEST 95.0 52.41	ZTH LARGEST 112.0 52.64	ZTH LARGEST 248.0 51.21	ZTH LARGEST 51.21	ZTH LARGEST 125.0 52.54	ZTH LARGEST 144.0 52.54	ZTH LARGEST 166.0 52.77	ZTH LARGEST 195.0 52.00
TH LARGEST 93.0 52.41	TH LARGEST 93.0 52.74	TH LARGEST 112.0 52.14	TH LARGEST 448.0 52.67	TH LARGEST 52.67	TH LARGEST 159.0 52.67	TH LARGEST 165.0 52.67	TH LARGEST 186.0 52.67	TH LARGEST 197.0 52.68
TH LARGEST 93.0 52.74	TH LARGEST 93.0 52.74	TH LARGEST 112.0 52.50	TH LARGEST 151.0 52.32	TH LARGEST 52.32	TH LARGEST 100.0 52.41	TH LARGEST 109.0 52.41	TH LARGEST 129.0 52.41	TH LARGEST 149.0 52.51
TH LARGEST 94.0 52.46	TH LARGEST 94.0 52.83	TH LARGEST 112.0 52.46	TH LARGEST 121.0 52.41	TH LARGEST 52.41	TH LARGEST 103.0 52.46	TH LARGEST 109.0 52.46	TH LARGEST 129.0 52.46	TH LARGEST 149.0 52.79
TH LARGEST 94.0 51.92	TH LARGEST 94.0 52.32	TH LARGEST 112.0 51.92	TH LARGEST 153.0 54.46	TH LARGEST 54.46	TH LARGEST 163.0 52.34	TH LARGEST 189.0 52.34	TH LARGEST 233.0 52.51	TH LARGEST 203.0 52.43
TH LARGEST 94.0 52.32	TH LARGEST 97.0 52.24	TH LARGEST 117.0 52.34	TH LARGEST 154.0 51.92	TH LARGEST 51.92	TH LARGEST 164.0 51.92	TH LARGEST 189.0 52.07	TH LARGEST 235.0 51.92	TH LARGEST 156.0 52.61
TH LARGEST 97.0 52.24	TH LARGEST 97.0 52.44	TH LARGEST 112.0 52.44	TH LARGEST 150.0 52.24	TH LARGEST 52.24	TH LARGEST 104.0 52.32	TH LARGEST 196.0 52.32	TH LARGEST 236.0 52.44	TH LARGEST 156.0 52.57
1ST LARGEST 90.0 52.44	1ST LARGEST 122.0 52.44	1ST LARGEST 163.0 52.44	1ST LARGEST 172.0 52.44	1ST LARGEST 52.44	1ST LARGEST 194.0 52.44	1ST LARGEST 246.0 52.44	1ST LARGEST 336.0 52.44	1ST LARGEST 207.0 52.32
TH MEAN VALUE								
STD. DEVIATION								
COFF/VARIATION								
VELA ONE								
VELA TWO								
(N-2)-AVG EST								
(N-2)-(S.D.) <sup>2</sup>								
PCI DIFF/MÉAJS								
PCI UDF/SDVS								
SQRT OF SAMPL								

## STATISTICS FOR VARIABLES 25 THROUGH 32

		26	27	28	29	30	31	32
		FACE 8/B1	BILOCULAR BREADTH	INTERUPI LLARY JIS	NOSE LENGTH	NOSE BREATH	MOUTH BRIT H/SMILING	EAR LENGTH
		VALUE SUBJECT	VALUE SUBJECT	VALUE SUBJECT	VALUE SUBJECT	VALUE SUBJECT	VALUE SUBJECT	VALUE SUBJECT
MINIMUM F RONTAL BK	92.0	5163	125.0	5163	87.0	5163	47.0	5225
1ST SMALLEST	95.0	5226	120.0	5170	91.0	5252	47.0	5226
2ND SMALLEST	95.0	5197	120.0	5160	91.0	5226	48.0	5226
3RD SMALLEST	96.0	5170	126.0	5158	91.0	5182	51.0	5215
4TH SMALLEST	98.0	5224	127.0	5162	92.0	5224	44.0	5220
5TH SMALLEST	99.0	5230	127.0	5105	92.0	5170	32.0	5240
6TH SMALLEST	100.0	5271	128.0	5201	92.0	5102	44.0	5187
7TH SMALLEST	100.0	5193	128.0	5187	92.0	5105	52.0	5169
8TH SMALLEST	100.0	5123	129.0	5209	93.0	5256	42.0	5194
9TH SMALLEST	100.0	5136	136.0	5082	94.0	5097	33.0	5163
XTH SMALLEST	+	+	+	+	+	+	31.0	5161
XTH LARGEST	122.0	5146	145.0	5164	108.0	5144	65.0	5102
ETH LARGEST	122.0	5214	145.0	5212	108.0	5140	65.0	5220
OTH LARGEST	123.0	5196	145.0	5126	108.0	5200	52.0	5243
7TH LARGEST	123.0	5199	145.0	5145	109.0	5165	65.0	5276
8TH LARGEST	123.0	5244	145.0	5146	109.0	5190	66.0	5267
5TH LARGEST	124.0	5216	145.0	5214	109.0	5234	67.0	5073
4TH LARGEST	124.0	5251	146.0	5168	109.0	5270	68.0	5251
3RD LARGEST	125.0	5159	147.0	5090	111.0	5268	68.0	5279
2ND LARGEST	125.0	5277	147.0	5277	112.0	5232	71.0	5198
1ST LARGEST	127.0	5690	140.0	5159	114.0	5080	73.0	5210
THE MEAN VALUE	111.29	137.25	101.18	56.92	49.74	37.21	64.71	62.19
STU. DEVIATION	6.04	5.24	4.94	4.81	3.59	4.75	7.17	4.41
COFF/VARIATION	7.23	3.81	4.88	8.17	7.22	12.76	11.08	7.09
VITA ONE	-0.15	-0.38	-0.18	-0.45	-0.31	-0.36	-0.23	-0.27
VITA TWO	2.19	2.70	3.25	3.17	2.50	2.22	2.34	3.53
(N-2) - AVG EST	111.45	137.80	101.32	50.90	49.01	37.00	64.51	62.26
(N-2) - S.D. ± 31	9.69	9.24	4.53	4.83	3.79	3.35	7.64	3.91
PCT DIFF/MÉAIS	-2.	-5.	-3.	4.	3.	4.	3.	-2.
PCT DIFF/ST DVS	-12.	-6.	9.	-1.	-5.	-11.	-6.	13.
SIZE OF SAMPLE	102	102	102	102	102	102	102	102

33 EAR BREAD TH		34 BI AURICUL AK BR		35 HEAD CIRC DIFFERENCE		36 HEAD BREA TH		37 HEAD BREA TH	
VALUE SUBJECT	VALUE SUBJECT	VALUE SUBJECT	VALUE SUBJECT	VALUE SUBJECT	VALUE SUBJECT	VALUE SUBJECT	VALUE SUBJECT	VALUE SUBJECT	VALUE SUBJECT
1ST SMALLEST	34.0 5258	157.0 2215	222.0 2194	139.0 2252	176.0 5194				
2ND SMALLEST	35.0 5185	160.0 5271	525.0 5226	145.0 236	484.0 5226				
3RD SMALLEST	36.0 5245	162.0 5269	527.0 5226	141.0 281	181.0 2226				
4TH SMALLEST	37.0 5204	163.0 5258	530.0 5241	141.0 271	181.0 5185				
5TH SMALLEST	37.0 5208	165.0 2194	531.0 5236	141.0 245	183.0 5268				
6TH SMALLEST	37.0 5089	166.0 5156	532.0 5163	141.0 5163	183.0 5095				
7TH SMALLEST	37.0 5132	166.0 5278	533.0 5204	141.0 5102	184.0 5201				
8TH SMALLEST	36.0 5243	166.0 5162	533.0 5182	141.0 5103	180.0 5199				
9TH SMALLEST	38.0 5201	167.0 5061	540.0 5271	142.0 226	187.0 5280				
XTH SMALLEST	39.0 5227	167.0 5163	540.0 5082	142.0 5147	188.0 2235				
***+*									
XTH LARGEST	48.0 5441	196.0 5168	580.0 5231	156.0 2136	244.0 5232				
5TH LARGEST	48.0 5164	196.0 5268	592.0 5269	156.0 5129	204.0 5269				
6TH LARGEST	49.0 5140	196.0 2254	592.0 5277	157.0 5108	246.0 5234				
7TH LARGEST	51.0 5166	191.0 5138	583.0 5126	157.0 5126	246.0 5234				
6TH LARGEST	51.0 5111	192.0 5269	569.0 5232	157.0 5145	247.0 5276				
5TH LARGEST	51.0 5148	190.0 2244	585.0 5244	157.0 5153	247.0 5231				
4TH LARGEST	51.0 5192	197.0 2159	588.0 5281	157.0 5204	248.0 5277				
3RD LARGEST	51.0 5242	199.0 5234	569.0 5275	157.0 5221	249.0 5258				
2ND LARGEST	52.0 5096	200.0 3149	590.0 5267	156.0 5168	249.0 5250				
1ST LARGEST	53.0 5187	211.0 5190	601.0 5256	159.0 5259	243.0 5267				
TH MEAN VALUE									
SIG. DEVIATION	*3.30	178.73	256.72	149.74	194.82				
COFF/VARIATION	3.63	6.71	15.94	4.67	6.54				
VITA ONE	6.37	4.04	2.78	3.25	3.36				
VITA TWO	.21	.18	.11	*.25	.18				
3.46	2.98	2.94	2.23	3.03					
(N-2) - AVG EST	43.32	178.01	556.05	149.91	194.72				
(N-2) - S.D. EST	3.14	8.61	15.14	2.43	5.06				
PCT DIFF/M=AVG	2.	1.	1.	-3.	2.				
PCT DIFF/STD VS	16.	1.	3.	-10.	10.				
SIZE OF SAMPLE	462	162	462	142	142				

## A SUMMARY OF THE MATERIAL ALREADY PRESENTED EITHER ON THE PRECEDING PAGES OR ON THE PUNCHED RANGE CARDS

NU. VARIABLE	NAME	MEAN	STD DEV	V-I	V-II	DELM DELS	THE RANGE CARD VALUES			
							N	MINIMUM	MAX	Avg
1	SIGITTA ARC	348.03	14.99	0.12	3.74	4.32	3.0	7.0	2.02	3.00
2	BIT'ON-CURVATL ARC	341.19	12.65	0.14	2.62	3.07	-1.3	-3.2	3.00	2.00
3	BIT'ON-FRONTEL ARC	293.13	10.71	0.03	2.74	3.72	0.4	-7.7	1.02	3.00
4	BIT'UN-4ENTL ARC	310.98	12.99	0.02	2.39	4.22	-0.2	-7.7	1.02	3.00
5	BIT-SUBMANBL ARC	286.25	12.84	0.04	2.24	4.52	-0.1	1.0	1.02	3.00
6	GRABELLA TO WALL	196.06	7.15	0.37	3.62	3.62	3.3	1.2	3.00	2.00
7	SELLION TO WALL	134.66	7.45	0.32	3.75	3.62	2.9	1.4	3.00	2.00
8	PHONASALÉ TO WALL	222.44	7.49	0.07	3.05	3.05	0.5	**	1.02	2.00
9	SUBNASALE TO WALL	206.68	7.83	0.38	3.47	3.82	3.0	8.4	1.02	2.00
10	LIP PROTUS-N-WALL	209.69	10.01	0.51	3.49	4.82	5.4	6.1	1.02	2.00
11	MENTON T3 WALL	202.16	11.13	0.42	3.69	5.52	2.6	-0.0	1.02	2.00
12	ECTOCANTHUS-WALL	175.02	7.46	0.12	3.12	4.32	1.5	6.7	1.02	2.00
13	TRAGION TO WALL	143.23	7.13	0.05	3.19	3.92	0.3	2.0	1.02	2.00
14	BIRAGION BREATH	135.05	5.86	0.04	2.63	4.44	0.6	-3.5	1.02	2.00
15	MEAJ HT/TAIGN-VERTE	133.88	0.79	0.3	3.47	5.12	0.1	1.4	1.02	2.00
16	ECTOCANTHUS-VERTEX	116.38	7.94	0.22	3.14	7.24	2.1	-0.2	1.02	2.00
17	GUABELLA TO VERTEX	79.03	8.55	0.09	2.30	4.82	1.0	-7.0	1.02	2.00
18	SELLION TO VERTEX	96.56	9.98	0.24	2.52	4.0	0.0	-6.9	1.02	2.00
19	PHONASALÉ TO VERTE	131.44	10.66	0.43	2.65	8.12	0.5	-3.5	1.02	2.00
20	SUBNASALE TO VERTE	99.54	14.82	0.22	2.74	6.62	2.0	-5.3	1.02	2.00
21	STUMION TO VERTEX	168.05	9.38	0.23	2.72	5.9	-0.8	1.02	1.02	2.00
22	MENTON T3 VERTEX	215.30	10.00	0.36	2.06	4.74	4.8	-1.0	1.02	2.00
23	FAVE LENGTH	117.04	b.75	0.07	2.54	2.87	0.6	-1.2	1.02	2.00
24	GRINNIN-ALTON	185.24	0.51	0.04	3.16	4.62	-1.0	3.4	1.02	2.00
25	MINIMUM FRONTAL BR	111.29	6.34	0.15	2.19	7.22	-1.7	-1.6	1.02	2.00
26	FACE GRIZZOMATIC	137.52	5.24	0.38	2.76	3.82	-4.9	-0.1	1.02	2.00
27	BIOCLYL BREATH	101.16	4.94	-0.18	3.25	4.92	-3.1	0.9	0.7	2.00
28	ANTEROPUPILLARY DIS	58.92	4.81	0.05	3.17	8.22	0.4	-0.6	1.02	2.00
29	NOSE LENGTH	49.74	3.59	0.31	2.14	7.22	3.3	-2.2	1.02	2.00
30	NOSE BREATH	37.24	4.75	0.36	2.42	12.82	3.0	-14.2	1.02	2.00
31	MOUTH BREATH SMILING	69.71	7.17	0.23	3.11	11.12	1.2	-0.2	1.02	2.00
32	EAR LENGTH	62.19	4.41	-0.27	3.53	7.12	-1.8	1.2	0.5	2.00
33	LAR BREATH	43.36	3.63	0.21	3.65	8.42	0.5	1.2	0.0	2.00
34	BIAURICULAH BR	176.73	8.71	0.18	2.98	4.92	1.3	1.6	1.02	2.00
35	HEAD CIRCUMFERENCE	526.75	15.54	0.11	4.94	2.82	0.7	2.0	2.22	3.00
36	HEAD BREATH	149.74	4.87	-0.23	2.24	3.32	-3.3	1.6	1.02	2.00
37	HEAD BREATH	194.62	6.54	0.10	3.63	3.42	1.8	1.2	1.02	2.00

C-4. XVAL TABLES FOR THE STATIC STRENGTH SUBSERIES

## STATISTICS FOR VARIABLES 1 THROUGH 8

	1	2	3	4	5	6	7	8
	STRENGTH/2 H 38CM M1	STRENGTH/2 H 38CM M2	STRENGTH/2 H 38CM P1	STRENGTH/2 H 38CM P2	STRENGTH/2 H 20CM M1	STRENGTH/2 H 50CM M2	STRENGTH/2 H 50CM P1	STRENGTH/2 H 50CM P2
	VALUE SBJCT							
1ST SMALLEST	1433.0 5025	1483.0 5033	1566.0 5128	1660.0 5163	1491.0 5215	1569.0 5253	1562.0 5253	1733.0 5183
2ND SMALLEST	1463.0 5125	1528.0 5183	1579.0 5125	1746.0 5215	1535.0 5092	1602.0 5033	1683.0 5035	1777.0 5189
3RD SMALLEST	1471.0 5218	1585.0 5167	1628.0 5025	1758.0 5125	1553.0 5033	1619.0 5183	1720.0 5092	1794.0 5215
4TH SMALLEST	1525.0 5164	1599.0 5195	1672.0 5190	1824.0 5180	1592.0 5206	1658.0 5215	1738.0 5033	1836.0 5253
5TH SMALLEST	1530.0 5034	1619.0 5034	1720.0 5034	1906.0 5093	1612.0 5189	1663.0 5253	1762.0 5189	1843.0 5104
6TH SMALLEST	1585.0 5274	1619.0 5215	1779.0 5183	1920.0 5254	1627.0 5035	1686.0 5104	1770.0 5183	1867.0 5034
7TH SMALLEST	1594.0 5183	1634.0 5125	1780.0 5115	1910.0 5108	1632.0 5183	1723.0 5034	1811.0 5034	1869.0 5035
8TH SMALLEST	1595.0 5190	1647.0 5180	1824.0 5189	1964.0 5033	1656.0 5034	1735.0 5205	1907.0 5215	1902.0 5033
9TH SMALLEST	1635.0 5225	1693.0 5238	1845.0 5167	1970.0 5253	1698.0 5215	1746.0 5035	1910.0 5206	1905.0 5205
XTH SMALLEST	1637.0 5189	1767.0 5137	1887.0 5215	1980.0 5238	1701.0 5167	1763.0 5092	1926.0 5093	1945.0 5188
*****								
XTH LARGEST	2906.0 5265	2902.0 5012	3065.0 5160	3043.0 5099	2803.0 5091	2977.0 5275	3042.0 5181	3145.0 5130
9TH LARGEST	2922.0 5261	2975.0 5240	3129.0 5208	3142.0 5200	2860.0 5275	2875.0 5181	3472.0 5248	3146.0 5161
8TH LARGEST	2961.0 5012	2996.0 5131	3186.0 5122	3116.0 5248	2920.0 5099	2881.0 5099	3239.0 5212	3163.0 5248
7TH LARGEST	3031.0 5275	3008.0 5275	3192.0 5114	3150.0 5275	2978.0 5114	3633.0 5130	3270.0 5208	3170.0 5212
6TH LARGEST	3032.0 5206	3009.0 5060	3269.0 5246	3267.0 5131	3028.0 5216	3052.0 5208	3224.0 5131	3227.0 5208
5TH LARGEST	3073.0 5131	3140.0 5114	3270.0 5131	3333.0 5122	3063.0 5131	3069.0 5248	3398.0 5114	3324.0 5264
4TH LARGEST	3093.0 5122	3200.0 5122	3280.0 5275	3405.0 5114	3092.0 5208	3169.0 5237	3406.0 5237	3330.0 5237
3RD LARGEST	3150.0 5248	3240.0 5132	3294.0 5130	3421.0 5132	3190.0 5122	3252.0 5131	3403.0 5216	3351.0 5131
2ND LARGEST	3260.0 5139	3243.0 5139	3463.0 5139	3456.0 5139	3227.0 5051	3287.0 5114	3443.0 5122	3513.0 5051
1ST LARGEST	3455.0 5051	3443.0 5051	3563.0 5051	3589.0 5051	3234.0 5237	3389.0 5051	3603.0 5051	3664.0 5114
THE MEAN VALJE	2264.92	2290.27	2451.81	2516.32	2250.93	2474.25	2472.02	2485.49
STD. DEVIATION	454.14	426.11	459.20	399.98	401.14	398.18	430.48	411.47
COFF/VARIATION	20.45	18.34	16.73	15.93	17.82	17.51	17.41	16.55
VETA ONE	*21	*36	*21	*33	*35	*55	*37	*48
VETA TWO	2.41	2.62	2.33	2.94	2.76	3.04	2.84	2.90
(N=20)-AVG EST	2251.82	2271.84	2446.15	2493.84	2232.94	2248.85	2495.82	2463.61
(N=20)-S.D. EST	488.24	414.49	501.56	394.07	398.17	393.05	423.94	409.75
PCT JIFF/MEANS	3.	4.	2.	4.	5.	6.	4.	5.
PCT DIF/SI OVS	-7.	1.	-8.	1.	1.	1.	2.	0.
SIZE OF SAMPLE	102	102	102	102	102	102	102	102

MEN'S ARMY SUB-SERIES STATIC MUSCLE STRENGTH

STATISTICS FOR VARIABLES 9 THROUGH 16

	9	10	11	12	13	14	15	16
	STRGTH/2H							
	100CM M1	100CM M2	100CM P1	100CM P2	150CM M1	150CM M2	150CM P1	150CM P2
	VALUE SBJCT							
1ST SMALLEST	876.0	5101	830.0	5204	945.0	5101	820.0	5101
2ND SMALLEST	879.0	5103	838.0	5103	1034.0	5041	938.0	5101
3RD SMALLEST	979.0	5041	843.0	5161	1089.0	5104	990.0	5103
4TH SMALLEST	986.0	5092	924.0	5195	1103.0	5183	1042.0	5195
5TH SMALLEST	993.0	5104	966.0	5104	1124.0	5254	1059.0	5011
6TH SMALLEST	1004.0	5195	988.0	5011	1131.0	5011	1072.0	5164
7TH SMALLEST	1006.0	5128	989.0	5189	1178.0	5189	1123.0	5189
8TH SMALLEST	1020.0	5189	1066.0	5035	1178.0	5128	1135.0	5035
9TH SMALLEST	1042.0	5254	1066.0	5260	1184.0	5167	1168.0	5260
XTH SMALLEST	1043.0	5126	1087.0	5128	1198.0	5204	1191.0	5145
*****	*****	*****	*****	*****	*****	*****	*****	*****
XTH LARGEST	1959.0	5152	1957.0	5239	2107.0	5239	2103.0	5132
9TH LARGEST	1981.0	5132	1963.0	5124	2124.0	5197	2116.0	5197
8TH LARGEST	1994.0	5124	1981.0	5152	2128.0	5122	2126.0	5265
7TH LARGEST	2016.0	5239	2012.0	5132	2167.0	5131	2137.0	5122
6TH LARGEST	2077.0	5122	2019.0	5265	2198.0	5060	2146.0	5152
5TH LARGEST	2099.0	5064	2062.0	5122	2222.0	5237	2150.0	5151
4TH LARGEST	2112.0	5265	2131.0	5060	2230.0	5265	2295.0	5060
3RD LARGEST	2122.0	5237	2175.0	5237	2335.0	5152	2309.0	5237
2ND LARGEST	2144.0	5246	2355.0	5246	2308.0	5246	2498.0	5246
1ST LARGEST	2485.0	5051	2480.0	5051	2586.0	5051	2596.0	5051
THE MEAN VALUE	1467.58		1454.20		1596.03		1594.98	
STD. DEVIATION	323.61		329.72		330.51		350.95	
COFF/VARIATION	22.05		22.67		20.71		22.00	
VETA ONE	.55		.57		.51		.47	
VETA TWO	2.91		3.21		2.68		2.80	
(N-20)-AVG EST	1449.66		1434.26		1577.12		1579.37	
(N-20)-S.D.EST	333.67		325.95		352.27		367.68	
PCT DIFF/MEANS	5.		6.		5.		4.	
PCT DIF/ST DVS	-3.		1.		-6.		-5.	
SIZE OF SAMPLE	102		102		102		102	

## STATISTICS FOR VARIABLES 17 THROUGH 24

	17	18	19	20	21	22	23	24
	STRGTH/1H 100CM M1	STRGTH/1H 100CM M2	STRGTH/1H 100CM P1	STRGTH/1H 100CM P2	STRGTH/1H H 45 C M1	STRGTH/1H H 45 C M2	STRGTH/1H H 45 C P1	STRGTH/1H H 45 C P2
	VALUE SBJCT	VALUE SBJCT	VALUE SBJCT	VALUE SBJCT				
1ST SMALLEST	422.0 518.5	395.0 526.3	447.0 518.0	452.0 516.3	344.0 526.3	414.0 501.9	499.0 514.6	462.0 501.9
2ND SMALLEST	423.0 518.0	402.0 518.3	489.0 518.3	457.0 518.0	422.0 514.6	442.0 526.3	501.0 501.9	559.0 526.3
3RD SMALLEST	461.0 501.1	404.0 518.0	517.0 510.1	507.0 517.1	446.0 501.9	489.0 511.3	511.0 520.6	572.0 511.3
4TH SMALLEST	466.0 510.1	462.0 517.1	533.0 501.1	523.0 501.8	452.0 511.3	499.0 518.3	528.0 526.3	573.0 512.8
5TH SMALLEST	467.0 518.9	476.0 511.3	550.0 518.9	554.0 511.3	457.0 520.6	503.0 512.8	569.0 511.3	602.0 501.8
6TH SMALLEST	489.0 525.4	477.0 501.8	567.0 525.4	561.0 523.8	471.0 523.8	522.0 514.6	600.0 525.3	614.0 519.7
7TH SMALLEST	505.0 6 517.1	518.0 525.3	584.0 525.3	568.0 518.3	510.0 518.3	542.0 519.7	612.0 523.6	651.0 513.9
8TH SMALLEST	509.0 6 526.0	523.0 516.7	505.0 516.7	572.0 525.3	552.0 519.7	552.0 501.8	613.0 519.7	662.0 511.5
9TH SMALLEST	520.0 518.8	530.0 518.9	600.0 501.8	579.0 509.2	564.0 525.3	556.0 519.5	625.0 518.3	670.0 519.6
XTH SMALLEST	529.0 516.7	532.0 501.9	610.0 518.0	585.0 501.9	594.0 520.5	581.0 519.6	662.0 520.5	685.0 514.0
*****								
XTH LARGEST	1312.0 227.5	1263.0 521.8	1497.0 519.6	1496.0 519.6	1412.0 520.8	1463.0 517.5	1594.0 515.2	1610.0 526.1
9TH LARGEST	1342.0 521.8	1285.0 527.5	1549.0 523.9	1510.0 513.1	1427.0 517.5	1467.0 509.9	1617.0 513.1	1649.0 526.6
8TH LARGEST	1381.0 517.5	1341.0 519.6	1669.0 521.8	1517.0 521.8	1429.0 521.8	1619.0 521.8	1621.0 521.8	1658.0 505.1
7TH LARGEST	1384.0 6 521.7	1422.0 524.6	1733.0 522.7	1532.0 522.7	1432.0 522.8	1491.0 512.4	1622.0 522.4	1675.0 509.9
6TH LARGEST	1385.0 523.9	1450.0 523.9	1776.0 526.5	1601.0 524.6	1452.0 519.8	1496.0 521.8	1641.0 517.5	1697.0 511.6
5TH LARGEST	1612.0 524.6	1520.0 512.2	1778.0 505.1	1721.0 512.2	1498.0 506.0	1542.0 505.1	1659.0 520.8	1717.0 512.2
4TH LARGEST	1629.0 512.2	1524.0 517.5	1786.0 517.5	1772.0 517.5	1546.0 512.4	1547.0 521.0	1666.0 505.1	1725.0 521.0
3RD LARGEST	1673.0 526.5	1552.0 526.4	1789.0 524.6	1782.0 526.5	1580.0 505.1	1548.0 506.0	1707.0 511.6	1774.0 506.0
2ND LARGEST	1710.0 505.1	1644.0 4 265	1863.0 512.2	1693.0 505.1	1613.0 512.2	1685.0 511.6	1749.0 526.4	1784.0 526.4
1ST LARGEST	1750.0 526.4	1749.0 505.1	2187.0 526.4	2186.0 526.4	1621.0 521.0	1669.0 526.4	1750.0 512.2	1814.0 521.0
*****								
THE MEAN VALUE	917.40	933.25	1048.74	1077.39	1000.89	1048.91	1148.72	1172.54
STU. DEVIATION	288.82	282.10	327.70	317.41	347.54	313.87	330.57	334.10
COFF/VARIATION	31.48	30.23	31.25	29.47	30.73	29.92	28.83	28.49
VETA ONE	.65	.34	.77	.47	.39	-.21	-.23	-.14
VETA TWO	3.49	3.01	3.99	3.85	2.19	2.07	2.14	2.11
(N=20)-AVG EST	897.63	923.49	1022.71	1067.01	1003.28	1456.10	1153.91	1175.93
(N=20)-S.D.EST	269.99	276.67	283.75	285.44	343.71	360.70	373.65	377.26
PCT DIFF/MEANS	7.	4.	9.	4.	-1.	-2.	-2.	-1.
PCT DIFF/ST DVS	7.	2.	15.	11.	-11.	-13.	-12.	-11.
SIZE OF SAMPLE	102	102	102	102	102	102	102	102

MEN'S ARMY SUB-SERIES STATIC MUSCLE STRENGTH

STATISTICS FOR VARIABLES 25 THROUGH 32

	25	26	27	28	29	30	31	32
	STRENGTH/1	STRENGTH/1	STRENGTH/1	STRENGTH/2	STRENGTH/2	STRENGTH/2	STRENGTH/2	STRENGTH/2
	H 45 S M1	H 45 S M2	H 45 S P1	H 38CM M1	H 38CM M2	H 38CM P1	H 38CM P2	H 38CM P2
	VALUE SUBJECT							
1ST SMALLEST	432.0 5189	462.0 5011	502.0 5183	525.0 5245	1022.0 5104	1057.0 5167	1229.0 5167	1286.0 5167
2ND SMALLEST	436.0 5183	490.0 5205	509.0 5117	578.0 5117	1118.0 5011	1091.0 5104	1241.0 5104	1322.0 5104
3RD SMALLEST	443.0 5146	529.0 5117	513.0 5189	582.0 5011	1139.0 5167	1167.0 5126	1320.0 5011	1330.0 5126
4TH SMALLEST	443.0 5117	531.0 5137	525.0 5253	605.0 5189	1291.0 5126	1301.0 5205	1416.0 5128	1549.0 5238
5TH SMALLEST	444.0 5127	533.0 5163	533.0 5127	606.0 5137	1329.0 5145	1351.0 5238	1461.0 5126	1563.0 5205
6TH SMALLEST	467.0 5253	538.0 5018	549.0 5205	619.0 5152	1350.0 5115	1382.0 5011	1483.0 5168	1627.0 5035
7TH SMALLEST	478.0 5019	539.0 5152	556.0 5139	623.0 5018	1367.0 5172	1426.0 5189	1536.0 5146	1640.0 5172
8TH SMALLEST	480.0 5113	555.0 5169	560.0 5019	680.0 5041	1368.0 5126	1430.0 5137	1611.0 5169	1648.0 5011
9TH SMALLEST	485.0 5139	603.0 5019	578.0 5113	997.0 5127	1378.0 5169	1453.0 5172	1613.0 5183	1670.0 5168
XTH SMALLEST	491.0 5205	607.0 5041	584.0 5140	715.0 5139	1382.0 5168	1494.0 5163	1619.0 5145	1675.0 5017
*****	*****	*****	*****	*****	*****	*****	*****	*****
XTH LARGEST	1231.0 5237	1320.0 5217	1373.0 5217	1420.0 5181	2651.0 5181	2604.0 5060	2760.0 5181	2786.0 5152
9TH LARGEST	1253.0 5239	1336.0 5124	1374.0 5047	1420.0 5237	2664.0 5216	2615.0 5051	2613.0 5206	2617.0 5124
8TH LARGEST	1257.0 5175	1336.0 5228	1410.0 5265	1427.0 5124	2693.0 5124	2627.0 5124	2629.0 5152	2627.0 5051
7TH LARGEST	1259.0 5214	1336.0 5239	1443.0 5175	1465.0 5122	2706.0 5051	2628.0 5152	2850.0 5113	2830.0 5060
6TH LARGEST	1260.0 5217	1348.0 5237	1454.0 5239	1468.0 5239	2740.0 5113	2660.0 5261	3023.0 5139	2915.0 5208
5TH LARGEST	1308.0 5205	1356.0 5100	1486.0 5275	1490.0 5175	2740.0 5139	2678.0 5264	3036.0 5218	2919.0 5212
4TH LARGEST	1349.0 5275	1357.0 5265	1499.0 5124	1537.0 5217	2765.0 5264	2681.0 5208	3135.0 5060	2978.0 5122
3RD LARGEST	1438.0 5124	1378.0 5099	1625.0 5216	1570.0 5218	2872.0 5060	2763.0 5122	3143.0 5264	3046.0 5264
2ND LARGEST	1500.0 5099	1414.0 5175	1645.0 5099	1571.0 5099	3035.0 5122	2938.0 5218	3370.0 5099	3300.0 5099
1ST LARGEST	1601.0 5264	1700.0 5264	1841.0 5264	1935.0 5264	3163.0 5099	3246.0 5099	3440.0 5122	3373.0 5218
THE MEAN VALUE	867.17	931.65	990.62	1055.64	1977.71	1994.39	2165.38	2204.35
STD. DEVIATION	263.05	252.12	289.10	269.25	442.47	406.18	447.63	408.07
COFF/VARIATION	30.33	27.06	26.96	25.50	22.37	20.37	20.67	18.51
VETA ONE	.28	.32	.24	.31	.31	.19	.47	.31
VETA TWO	2.56	2.60	2.61	2.96	2.69	3.06	3.14	3.12
(N=20)-AVG EST	858.49	924.16	991.46	1050.69	1962.84	1905.60	2145.60	2191.91
(N=20)-S.D.EST	283.66	272.28	311.49	266.82	466.51	404.44	436.36	399.81
PCT DIFF/MEANS	3.	3.	2.	2.	3.	2.	3.	3.
PCT DIF/ST DVS	-7.	-7.	-7.	-6.	-4.	0.	3.	2.
SIZE OF SAMPLE	102	102	102	102	102	102	102	102

STATISTICS FOR VARIABLES 33 THROUGH 38

**BEST AVAILABLE COPY**

A SUMMARY OF THE MATERIAL ALREADY PRESENTED EITHER ON THE PRECEDING PAGES OR ON THE PUNCHED RANGE CARDS

NO.	VARIABLE NAME	MEAN	STD DEV	V-I	V-II	V	DELM JELS	N MINIMUM MAX AVG				INTV1 INTV2				CF1 CF2			
								N	MINIMUM	MAX	Avg	N	MINIMUM	MAX	Avg	N	MINIMUM	MAX	Avg
1	STRENGTH/2H 38CM	M1 220.6 92 454.14	*21 2.41 20.1%	2.7	-7.6	102 1433.01397 5345.42265.0	80.00	50.00	50.00	50.00	102 1483.01447 5344.02290.0	80.00	50.00	50.00	102 1566.01547 53565.02452.0	80.00	50.00	50.00	0.4536 2.0462
2	STRENGTH/2H 38CM	M2 229.0 27 420.11	*36 2.62 18.3%	4.0	4	102 1483.01447 5344.02290.0	80.00	50.00	50.00	50.00	102 1566.01547 53565.02452.0	80.00	50.00	50.00	102 1562.01547 53663.02472.0	80.00	50.00	50.00	0.4536 2.0462
3	STRENGTH/2H 38CM	P1 2451.01 459.20	*21 2.59 18.7%	2.3	-8.4	102 1660.01660 53559.02510.0	80.00	50.00	50.00	50.00	102 1660.01667 53559.02510.0	80.00	50.00	50.00	102 1662.01667 53566.02485.0	80.00	50.00	50.00	0.4536 2.0462
4	STRENGTH/2H 38CM	P2 2510.32 399.96	*33 2.94 12.9%	4.2	1.5	102 1660.01667 53559.02510.0	80.00	50.00	50.00	50.00	102 1660.01667 53559.02510.0	80.00	50.00	50.00	102 1662.01667 53566.02485.0	80.00	50.00	50.00	0.4536 2.0462
5	STRENGTH/2H 50CM	M1 2250.93 401.14	*35 2.76 17.8%	4.5	7	102 1491.01447 53234.02251.0	80.00	50.00	50.00	50.00	102 1491.01447 53234.02251.0	80.00	50.00	50.00	102 1496.01547 53338.02274.0	80.00	50.00	50.00	0.4536 2.0462
6	STRENGTH/2H 50CM	M2 2274.25 398.18	*55 3.04 17.5%	6.5	1.3	102 1569.01547 53363.02472.0	80.00	50.00	50.00	50.00	102 1569.01547 53363.02472.0	80.00	50.00	50.00	102 1562.01547 53566.02485.0	80.00	50.00	50.00	0.4536 2.0462
7	STRENGTH/2H 50CM	P1 2472.42 430.48	*37 2.64 17.4%	4.3	1.5	102 1733.01697 53666.02485.0	80.00	50.00	50.00	50.00	102 1733.01697 53666.02485.0	80.00	50.00	50.00	102 1733.01697 53666.02485.0	80.00	50.00	50.00	0.4536 2.0462
8	STRENGTH/2H 50CM	P2 2485.43 411.47	*46 2.90 16.6%	5.3	2.3	102 1733.01697 53666.02485.0	80.00	50.00	50.00	50.00	102 1733.01697 53666.02485.0	80.00	50.00	50.00	102 1733.01697 53666.02485.0	80.00	50.00	50.00	0.4536 2.0462
9	STRENGTH/2H 100CM	M1 1467.58 323.61	*55 2.91 22.1%	3.4	-3.4	102 1476.0 847 52485.01468.0	80.00	50.00	50.00	50.00	102 1476.0 847 52485.01468.0	80.00	50.00	50.00	102 1476.0 847 52485.01468.0	80.00	50.00	50.00	0.4536 2.0462
10	STRENGTH/2H 100CM	M2 1454.20 329.72	*57 3.21 22.7%	6.1	1.2	102 1500.0 797 52486.01454.0	80.00	50.00	50.00	50.00	102 1500.0 797 52486.01454.0	80.00	50.00	50.00	102 1500.0 797 52486.01454.0	80.00	50.00	50.00	0.4536 2.0462
11	STRENGTH/2H 100CM	P1 1596.03 330.51	*51 2.68 20.7%	5.4	-6.2	102 945.0 897 52508.01596.0	80.00	50.00	50.00	50.00	102 945.0 897 52508.01596.0	80.00	50.00	50.00	102 945.0 897 52508.01596.0	80.00	50.00	50.00	0.4536 2.0462
12	STRENGTH/2H 100CM	P2 1594.98 350.95	*47 2.80 22.0%	4.2	-4.6	102 904.0 897 52596.01595.0	80.00	50.00	50.00	50.00	102 904.0 897 52596.01595.0	80.00	50.00	50.00	102 904.0 897 52596.01595.0	80.00	50.00	50.00	0.4536 2.0462
13	STRENGTH/2H 150CM	M1 1680.53 394.46	*53 2.78 26.6%	5.7	-3.9	102 1620.0 797 52644.01481.0	80.00	50.00	50.00	50.00	102 1620.0 797 52644.01481.0	80.00	50.00	50.00	102 1620.0 797 52644.01481.0	80.00	50.00	50.00	0.4536 2.0462
14	STRENGTH/2H 150CM	M2 1515.05 437.27	*67 4.32 26.9%	7.2	5	102 1792.0 717 53256.01516.0	100.00	80.00	80.00	80.00	102 1792.0 717 53256.01516.0	100.00	80.00	80.00	102 1792.0 717 53256.01516.0	100.00	80.00	80.00	0.4536 2.0462
15	STRENGTH/2H 150CM	P1 1642.60 421.91	*76 3.75 25.7%	7.0	3	102 919.0 897 53187.01643.0	80.00	50.00	50.00	50.00	102 919.0 897 53187.01643.0	80.00	50.00	50.00	102 919.0 897 53187.01643.0	80.00	50.00	50.00	0.4536 2.0462
16	STRENGTH/2H 150CM	P2 1672.86 452.82	*46 5.33 27.1%	8.4	6.5	102 903.0 877 53642.01673.0	100.00	80.00	80.00	80.00	102 903.0 877 53642.01673.0	100.00	80.00	80.00	102 903.0 877 53642.01673.0	100.00	80.00	80.00	0.4536 2.0462
17	STRENGTH/1H 100CM	M1 917.40 288.82	*65 3.49 31.5%	7.3	7.3	102 417.0 51749.0 917.0	50.00	30.00	30.00	30.00	102 417.0 51749.0 917.0	50.00	30.00	30.00	102 417.0 51749.0 917.0	50.00	30.00	30.00	0.4536 2.0462
18	STRENGTH/1H 100CM	M2 933.25 282.14	*34 3.01 30.2%	3.5	2.6	102 395.0 587 51749.0 933.0	50.00	30.00	30.00	30.00	102 395.0 587 51749.0 933.0	50.00	30.00	30.00	102 395.0 587 51749.0 933.0	50.00	30.00	30.00	0.4536 2.0462
19	STRENGTH/1H 100CM	P1 1048.74 327.70	*77 3.99 31.2%	9.2	15.2	102 447.0 397 52487.0 0149.0	60.00	50.00	50.00	50.00	102 447.0 397 52487.0 0149.0	60.00	50.00	50.00	102 447.0 397 52487.0 0149.0	60.00	50.00	50.00	0.4536 2.0462
20	STRENGTH/1H 100CM	P2 1077.69 317.41	*47 3.02 29.5%	3.5	11.4	102 452.0 447.0 52186.0 01077.0	84.00	50.00	50.00	50.00	102 452.0 447.0 52186.0 01077.0	84.00	50.00	50.00	102 452.0 447.0 52186.0 01077.0	84.00	50.00	50.00	0.4536 2.0462
21	STRENGTH/1H 45 C	M1 1000.89 307.54	*49 2.19 30.7%	7.7	-7.16.5	102 344.0 327.0 51621.0 01001.0	100.00	80.00	80.00	80.00	102 344.0 327.0 51621.0 01001.0	100.00	80.00	80.00	102 344.0 327.0 51621.0 01001.0	100.00	80.00	80.00	0.4536 2.0462
22	STRENGTH/1H 45 C	M2 1046.91 313.87	*21 2.07 29.9%	-2.0	-13.0	102 410.0 387.0 51669.0 0149.0	50.00	30.00	30.00	30.00	102 410.0 387.0 51669.0 0149.0	50.00	30.00	30.00	102 410.0 387.0 51669.0 0149.0	50.00	30.00	30.00	0.4536 2.0462
23	STRENGTH/1H 45 C	P1 1146.72 330.17	*23 2.14 28.8%	-1.9	-11.5	102 499.0 477.0 51749.0 01147.0	50.00	30.00	30.00	30.00	102 499.0 477.0 51749.0 01147.0	50.00	30.00	30.00	102 499.0 477.0 51749.0 01147.0	50.00	30.00	30.00	0.4536 2.0462
24	STRENGTH/1H 45 C	P2 1172.54 334.10	*14 2.11 28.5%	-1.9	-11.4	102 482.0 477.0 51814.0 01173.0	50.00	30.00	30.00	30.00	102 482.0 477.0 51814.0 01173.0	50.00	30.00	30.00	102 482.0 477.0 51814.0 01173.0	50.00	30.00	30.00	0.4536 2.0462
25	STRENGTH/1H 45 S	M1 807.17 263.05	*28 2.56 30.3%	3.1	-7.3	102 432.0 422.0 51601.0 0867.0	50.00	25.00	25.00	25.00	102 432.0 422.0 51601.0 0867.0	50.00	25.00	25.00	102 432.0 422.0 51601.0 0867.0	50.00	25.00	25.00	0.4536 2.0462
26	STRENGTH/1H 45 S	M2 931.85 252.12	*32 2.60 27.1%	2.8	-7.4	102 462.0 462.0 51749.0 932.0	50.00	30.00	30.00	30.00	102 462.0 462.0 51749.0 932.0	50.00	30.00	30.00	102 462.0 462.0 51749.0 932.0	50.00	30.00	30.00	0.4536 2.0462
27	STRENGTH/1H 45 S	P1 998.62 289.16	*24 2.61 29.0%	2.3	-7.2	102 502.0 477.0 51841.0 999.0	50.00	30.00	30.00	30.00	102 502.0 477.0 51841.0 999.0	50.00	30.00	30.00	102 502.0 477.0 51841.0 999.0	50.00	30.00	30.00	0.4536 2.0462
28	STRENGTH/1H 45 S	P2 1055.84 269.25	*31 2.96 25.5%	1.7	-6.1	102 525.0 507.0 51955.0 01056.0	50.00	30.00	30.00	30.00	102 525.0 507.0 51955.0 01056.0	50.00	30.00	30.00	102 525.0 507.0 51955.0 01056.0	50.00	30.00	30.00	0.4536 2.0462
29	STRENGTH/2H 38CM	M1 1977.71 442.47	*31 2.69 22.4%	3.2	-3.9	102 1022.0 997.0 51633.0 01978.0	80.00	50.00	50.00	50.00	102 1022.0 997.0 51633.0 01978.0	80.00	50.00	50.00	102 1022.0 997.0 51633.0 01978.0	80.00	50.00	50.00	0.4536 2.0462
30	STRENGTH/2H 38CM	M2 1994.39 406.18	*19 3.06 20.4%	2.1	4	102 1057.0 1047.0 53246.0 01994.0	80.00	50.00	50.00	50.00	102 1057.0 1047.0 53246.0 01994.0	80.00	50.00	50.00	102 1057.0 1047.0 53246.0 01994.0	80.00	50.00	50.00	0.4536 2.0462
31	STRENGTH/2H 38CM	P1 2165.38 447.63	*47 3.14 20.7%	4.5	2.6	102 1229.0 1229.0 54446.0 02165.0	60.00	50.00	50.00	50.00	102 1229.0 1229.0 54446.0 02165.0	60.00	50.00	50.00	102 1229.0 1229.0 54446.0 02165.0	60.00	50.00	50.00	0.4536 2.0462
32	STRENGTH/2H 38CM	P2 2204.35 438.47	*31 3.12 18.5%	3.1	2.1	102 1280.0 1247.0 53373.0 02204.0	80.00	50.00	50.00	50.00	102 1280.0 1247.0 53373.0 02204.0	80.00	50.00	50.00	102 1280.0 1247.0 53373.0 02204.0	80.00	50.00	50.00	0.4536 2.0462
33	STRENGTH/2H 50CM	M1 1708.49 384.84	*46 3.98 22.5%	3.0	4	102 816.0 797.0 52996.0 01708.0	80.00	50.00	50.00	50.00	102 816.0 797.0 52996.0 01708.0	80.00	50.00	50.00	102 816.0 797.0 52996.0 01708.0	80.00	50.00	50.00	0.4536 2.0462
34	STRENGTH/2H 50CM	M2 1715.21 355.69	*35 2.85 20.7%	3.8	1.4	102 935.0 897.0 52983.0 01715.0	80.00	50.00	50.00	50.00	102 935.0 897.0 52983.0 01715.0	80.00	50.00	50.00	102 935.0 897.0 52983.0 01715.0	80.00	50.00	50.00	0.4536 2.0462
35	STRENGTH/2H 50CM	P1 1800.38 416.17	*65 4.67 22.1%	4.9	1.1	102 999.0 897.0 53222.0 01880.0	80.00	50.00	50.00	50.00	102 999.0 897.0 53222.0 01880.0	80.00	5						

*NOT  
Preceding Page BLANK - FILMED*

APPENDIX D

BIVARIATE FREQUENCY TABLES - DATA FOR MALE SOLDIERS

The following pages contain a set of 51 selected bivariate frequency tables based on data from the Army men's subsurvey. All are standard tables. The construction and labelling of these tables followed the procedures used in creating the tables based on the women's data (Churchill, Thomas, Edmund Churchill, John T. McConville, and Robert M. White. 1977. Anthropometry of Women of the U.S. Army--1977, Report No. 3 - Bivariate Frequency Tables. Technical Report No. NATICK/TR-77/028, U.S. Army Natick Research and Development Command, Natick, Massachusetts).

For the reader's convenience, an index of the 51 bivariate frequency tables is provided below.

INDEX OF BIVARIATE TABLES

No.	Page	No.	Page
1 Weight/Stature	180	27 Stature/Shldr-Elbow Lgth	206
2 Weight/Chest Circ	181	28 Stature/Elb-Fingertip Lgth	207
3 Weight/Waist Circ-Nat	182	29 Stature/Buttock-Knee Lgth	208
4 Weight/Waist Circ-Omp	183	30 Chest Height/Chest Circ	209
5 Weight/Hip Circ	184	31 Waist Ht-Nat/Waist Ht-Omp	210
6 Weight/Interscye Back	185	32 Waist Ht-Nat/Waist C-Omp	211
7 Weight/Interscye Front	186	33 Waist Ht-Nat/Glu Fur Ht	212
8 Weight/Back Arc, Chest	187	34 Waist Ht-Omp/Waist C-Omp	213
9 Weight/Back Arc, Waist	188	35 Elbow Ht/Knuckle Ht	214
10 Weight/Back Arc, Hip	189	36 Buttock Ht/Hip Circ	215
11 Stature/Axilla Height	190	37 Buttock Ht/Glu Fur Ht	216
12 Stature/Suprasternale Ht	191	38 Acromion-Rad/Radiale-Styl	217
13 Stature/Chest Height	192	39 Sitting Ht/Eye Ht-Sit	218
14 Stature/Substernale Ht	193	40 Foot Lgth/Foot Breadth	219
15 Stature/Waist Ht-Natural	194	41 Foot Lgth/Foot Circ	220
16 Stature/Waist Ht-Omp	195	42 Interscye F/Interscye B	221
17 Stature/Elbow Height	196	43 Waist Front/Waist Back	222
18 Stature/Buttock Height	197	44 Glu Fur Ht/Tibiale Ht	223
19 Stature/Knuckle Height	198	45 Head Circ/Head Length	224
20 Stature/Gluteal Furrow Ht	199	46 Head Circ/Head Breadth	225
21 Stature/Tibiale Height	200	47 Head Length/Head Breadth	226
22 Stature/Sitting Height	201	48 Chest Circ/Waist Circ-Nat	227
23 Stature/Eye Height, Sit	202	49 Hand Lgth/Palm Lgth	228
24 Stature/Midshoulder Ht	203	50 Hand Lgth/Hand Circ	229
25 Stature/Knee Height	204	51 Hand Lgth/Hand Breadth	230
26 Stature/Popliteal Ht	205		

TABLE 1

A BIVARIATE FREQUENCY TABLE FOR  
WEIGHT AND STATURE

	WEIGHT														
	106	116	126	136	146	156	166	176	186	196	206	216	226	236	TOT
.75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	ALS
197.75															1
195.75															0
193.75															1
191.75															1
189.75															3
187.75															5
185.75															1
183.75															8
181.75															20
179.75															25
177.75															28
175.75															37
173.75															33
171.75															31
169.75															8
167.75															26
165.75															29
163.75															10
161.75															4
159.75															6
157.75	1														1
155.75		1													1
153.75	2														2
TOTALS	3	8	22	62	52	41	27	24	18	18	5	6	0	1	287

## SUMMARY STATISTICS

	MEAN	S <sub>TU</sub>	D <sub>EV</sub>	REGRESSION EQUATIONS	SE=EST	$\Sigma$
Y- STATURE	174.07	6.82	.10 <sup>4</sup> X	+ 149.111	5.61	569
X- WEIGHT	156.02	24.22	2.02 <sup>4</sup> Y	+ -195.013	19.91	

TABLE 2  
A BIVARIATE FREQUENCY TABLE FOR  
WEIGHT AND CHEST CIRCUMFERENCE

	WEIGHT	106	116	126	136	146	156	166	176	186	196	206	216	226	236	TOT
	WEIGHT	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	ALS
110.75																4
108.75																3
106.75																1
104.75																6
102.75																14
100.75																13
98.75																18
96.75																22
94.75																29
92.75																25
90.75																39
88.75																41
86.75																27
84.75																28
82.75																5
80.75																4
78.75																2
TOTALS	3	6	22	62	22	41	27	24	16	18	5	6	0	1	287	

SUMMARY STATISTICS

	MEAN	STD DEV	REGRESSION EQUATIONS	SE-EST	R
Y- CHEST CIRCUMFERENCE	92.90	6.60	*24*x + 55.459	3.07	* .085
X- WEIGHT	126.02	24.22	3.25*y - 145.918	11.27	

TABLE 3  
A BIVARIATE FREQUENCY TABLE FOR  
WEIGHT AND WAIST CIRCUMFERENCE/NATURAL

		WEIGHT														
		WEIGHT														
		WEIGHT														
		106	116	126	136	146	156	166	176	186	196	206	216	226	236	TOT
		.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	ALS
107.75																1
105.75																1
103.75																2
101.75																1
99.75																2
97.75																1
95.75																5
93.75																9
91.75																8
89.75																6
87.75																6
85.75																19
83.75																13
81.75																13
79.75																24
77.75																21
75.75																51
73.75																43
71.75																27
69.75																16
67.75																13
65.75																4
63.75																1
TOTALS	3	8	22	62	52	41	27	24	16	18	5	6	0	1	287	

### SUMMARY STATISTICS

	MEAN	STD DEV	REGRESSION EQUATIONS	SE-EST	R
Y-WAIST CIRCUMFERENCE/NATURAL	78.68	8.04	$.294X + 33.431$	4.07	.863
X-WEIGHT	156.02	24.22	$2.604Y + 48.541$	12.25	

TABLE 4

## A BIVARIATE FREQUENCY TABLE FOR WEIGHT AND WAIST CIRCUMFERENCE/OMPHALION

SUMMARY STATISTICS

	MEAN	STD. DEV	REGRESSION EQUATIONS	SE-EST	$\bar{x}$
Y-WAIST CIRCUMFERENCE/OMPHALION X-WEIGHT	78.87 156.02	8.29 24.22	.29*x .50*y + .4	.33-.63y -.41+.17y	12.45
					.658

TABLE 5

A BIVARIATE FREQUENCY TABLE FOR  
WEIGHT AND HIP CIRCUMFERENCE

	WEIGHT	TOT	ALS
114.75	106 116 126 136 146 156 166 176 186 196 206 216 226 236	206	1
.75	.75 .75 .75 .75 .75 .75 .75 .75 .75 .75 .75 .75 .75 .75	226	1
112.75		236	1
110.75		TOT	2
108.75		1	2
106.75		2	2
104.75		1	2
102.75		5	8
100.75		1	1
98.75		6	1
96.75		3	2
94.75		10	7
92.75		12	1
90.75		12	1
88.75		5	1
86.75		7	1
84.75		14	3
TOTALS	3 8 22 62 52 41 27 24 18 16 5 6 0 1	287	3

## SUMMARY STATISTICS

	MEAN	STD DEV	REGRESSION EQUATIONS	SE-EST	R
Y- HIP CIRCUMFERENCE	95.14	6.04	*23*x + 59.259	2.14	.935
X- WEIGHT	156.02	24.22	3.15*x + -200.771	8.58	

TABLE 6  
A BIVARIATE FREQUENCY TABLE FOR  
WEIGHT AND INTERSCYÉ BACK

WEIGHT	106	116	126	136	146	156	166	176	186	196	206	216	226	236	TOT	ALS
4.8-25	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	1	1
4.7-25	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
4.6-25	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
4.5-25	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
4.4-25	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
4.3-25	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
4.2-25	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
4.1-25	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
4.0-25	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
3.9-25	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
3.8-25	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
3.7-25	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
3.6-25	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
3.5-25	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
3.4-25	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
3.3-25	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
TOTALS	3	8	22	62	52	41	27	24	16	18	5	6	0	1	287	2

SUMMARY STATISTICS

	MEAN	STD DEV	REGRESSION EQUATIONS	SE=EST	R
INTERSCYE BACK WEIGHT	41.02	2.81	.06*x + .72*y	31.657 -37.591	.20.35 .20.26
X-	156.02	24.22			

TABLE 7

A BIVARIATE FREQUENCY TABLE FOR  
WEIGHT AND INTERSCYE FRONT

## WEIGHT

	106	116	126	136	146	156	166	176	186	196	206	216	226	236	TOT
.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	ALS
*1.00															1
*1.50															7
*2.00															4
*2.50															6
*3.00															9
*3.50															13
*4.00															20
39.50															24
39.00															29
38.50															19
38.00															33
37.50															26
37.00															29
36.50															19
36.00															17
35.50															13
35.00															3
34.50															10
34.00															3
33.50															1
33.00															1
32.50															1
32.00															1
31.50															1
TOTALS	3	8	22	62	52	41	27	24	18	18	5	6	0	1	287

## SUMMARY STATISTICS

	MEAN	STD DEV	REGRESSION EQUATIONS	SE-EST	R
Y- INTERSCYE FRONT	36.67	1.96	$.054X + 28.866$	1.47	.660
X- WEIGHT	156.02	2.22	$.016Y - 143.188$	18.19	

**TABLE 8**  
**A BIVARIATE FREQUENCY TABLE FOR  
 WEIGHT AND BACK ARC, CHEST**

## SUMMARY STATISTICS

	MEAN	STD. DEV.	REGRESSION EQUATIONS	SE-EST.	R
BACK ARC, CHEST	45.17	3.37	.11*x + .28.011	1.95	.815
WEIGHT	156.02	24.22	.86*y - 106.698	14.03	

TABLE 9

A BIVARIATE FREQUENCY TABLE FOR  
WEIGHT AND BACK ARC, WAIST

	WEIGHT	106	116	126	136	146	156	166	176	186	196	206	216	TOT
		.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	ALS
54.25														1
53.25														1
52.25														0
51.25														0
50.25														0
49.25														0
48.25														0
47.25														0
46.25														0
45.25														0
44.25														0
43.25														0
42.25														0
41.25														0
40.25														0
39.25														0
38.25														0
37.25														0
36.25														0
35.25														0
34.25														0
33.25														0
32.25														0
31.25														0
TOTALS	3	6	22	62	52	41	27	24	18	16	5	5	285	2
														287

## SUMMARY STATISTICS

	MEAN	STD DEV	REGRESSION EQUATIONS	SE=EST	R
Y- BACK ARC, WAIST	36.96	4.28	.154X +	15.559	.240
X- WEIGHT	156.02	24.22	.684Y +	-26.321	13.61

TABLE 10  
A BIVARIATE FREQUENCY TABLE FOR  
WEIGHT AND BACK ARC, HIP

	WEIGHT										TOT	ALS			
WEIGHT	106	116	126	136	146	156	166	176	186	196	206	216	226	236	TOT
58.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	1
57.75															0
56.75															0
55.75															1
54.75															1
53.75															2
52.75															2
51.75															7
50.75															4
49.75															10
48.75															13
47.75															19
46.75															25
45.75															20
44.75															33
43.75															30
42.75															52
41.75															36
40.75															21
39.75															9
TOTALS	3	8	22	62	52	41	27	24	18	16	5	6	0	1	287

#### SUMMARY STATISTICS

	MEAN	STD DEV	REGRESSION EQUATIONS	SE=EST	R
Y= BACK ARC, HIP	46.57	3.13	.11*X + 29.403	1.61	.657
X= WEIGHT	156.02	24.22	6.63*Y + -152.711	12.46	

TABLE 11  
A BIVARIATE FREQUENCY TABLE FOR  
STATURE AND AXILLA HEIGHT

		STATURE													
		153 155 157 159 161 163 165 167 169 171 173 175 177 179 181 183 185 187 189 191 193 195 197												TOT	
•75	149.75	1	1	1	1	1	1	1	1	1	1	1	1	1	1
147.75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
145.75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
143.75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
141.75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
139.75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7
137.75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16
135.75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20
133.75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	24
131.75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	41
129.75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	49
127.75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	37
125.75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35
123.75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	26
121.75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12
119.75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10
117.75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7
115.75	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3
113.75	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
TOTALS	2	1	2	6	4	6	10	29	28	31	33	37	28	25	20
															287

190

#### SUMMARY STATISTICS

	MEAN	STD DEV	REGRESSION EQUATIONS	SE=EST	R
V- AXILLA HEIGHT	131.24	5.69	*0.44*X -	14.976	.46
X- STATURE	174.07	6.82	1.12*Y +	27.080	.966

TABLE 12  
A BIVARIATE FREQUENCY TABLE FOR  
STATURE AND SUPRASTERNAL HEIGHT

## SUMMARY STATISTICS

	MEAN	STD DEV	REGRESSION EQUATIONS	SE-EST	R
Y- SUPRASTERNALE HEIGHT	142.70	6.09	.67*x	.8745	1.24
X- STATURE	174.07	6.02	1.10*y	.17105	1.38

TABLE 13  
A BIVARIATE FREQUENCY TABLE FOR  
STATURE AND CHEST HEIGHT

STATURE	CHEST HEIGHT															TOT							
	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75								
146.75	153	155	157	159	161	163	165	167	169	171	173	175	177	179	181	183	185	187	189	191	193	195	197
144.75	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
142.75	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
140.75	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
138.75	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
136.75	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
134.75	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
132.75	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
130.75	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
128.75	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
126.75	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
124.75	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
122.75	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
120.75	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
118.75	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
116.75	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
114.75	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
112.75	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
TOTALS	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

SUMMARY STATISTICS

	MEAN	STD DEV	REGRESSION EQUATIONS	SE-EST	R
CHEST HEIGHT	127.43	5.67	.80*x - 1.15*y	11.833	1.05
STATURE	174.07	6.82	+ 27.534	1.98	.957

TABLE 14  
A BIVARIATE FREQUENCY TABLE FOR  
STATURE AND SUBSTERNAL HEIGHT

	STATURE											TOT
	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	ALS
153	155	157	159	161	163	165	167	169	171	173	175	177
140.75	1	1	1	1	1	1	1	1	1	1	1	1
138.75												0
136.75												1
134.75												2
132.75												11
130.75												15
128.75												15
126.75												36
124.75												33
122.75												40
120.75												56
118.75												29
116.75												15
114.75												16
112.75												5
110.75												6
108.75												2
106.75												1
104.75	1											1
TOTALS	2	1	1	6	4	8	10	29	28	31	33	37
												267

#### SUMMARY STATISTICS

	MEAN	STD DEV	REGRESSION EQUATIONS	SE-EST	R
Y- SUBSTERNAL HEIGHT	122.57	5.49	.76*x	- 9.729	1.90
X- STATURE	174.07	6.82	1.16*y + 31.895	2.36	.938

TABLE 15

## A BIVARIATE FREQUENCY TABLE FOR STATURE AND WAIST HEIGHT/NATURAL

SUMMARY STATISTICS

	MEAN	STD DEV	REGRESSION EQUATIONS	SE-EST	R
Y= WAIST HEIGHT/NATURAL STATURE	104.12	5.75	.71*x - 1.00*y	19.474 69.956	3.08 3.66
X= STATURE	174.07	6.82	+ +		• .844

TABLE 16  
A BIVARIATE FREQUENCY TABLE FOR  
STATURE AND WAIST HEIGHT/OMPHALION

		STATURE																							
		.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75		
		153	155	157	159	161	163	165	167	169	171	173	175	177	179	181	183	185	187	189	191	193	195	197	
Y-	WAIST HEIGHT/OMPHALION	119.75	119.75	119.75	119.75	119.75	119.75	119.75	119.75	119.75	119.75	119.75	119.75	119.75	119.75	119.75	119.75	119.75	119.75	119.75	119.75	119.75	119.75		
X-	STATURE	117.75	117.75	117.75	117.75	117.75	117.75	117.75	117.75	117.75	117.75	117.75	117.75	117.75	117.75	117.75	117.75	117.75	117.75	117.75	117.75	117.75	117.75		
		115.75	115.75	115.75	115.75	115.75	115.75	115.75	115.75	115.75	115.75	115.75	115.75	115.75	115.75	115.75	115.75	115.75	115.75	115.75	115.75	115.75	115.75		
		113.75	113.75	113.75	113.75	113.75	113.75	113.75	113.75	113.75	113.75	113.75	113.75	113.75	113.75	113.75	113.75	113.75	113.75	113.75	113.75	113.75	113.75		
		111.75	111.75	111.75	111.75	111.75	111.75	111.75	111.75	111.75	111.75	111.75	111.75	111.75	111.75	111.75	111.75	111.75	111.75	111.75	111.75	111.75	111.75		
		109.75	109.75	109.75	109.75	109.75	109.75	109.75	109.75	109.75	109.75	109.75	109.75	109.75	109.75	109.75	109.75	109.75	109.75	109.75	109.75	109.75	109.75		
		107.75	107.75	107.75	107.75	107.75	107.75	107.75	107.75	107.75	107.75	107.75	107.75	107.75	107.75	107.75	107.75	107.75	107.75	107.75	107.75	107.75	107.75		
		105.75	105.75	105.75	105.75	105.75	105.75	105.75	105.75	105.75	105.75	105.75	105.75	105.75	105.75	105.75	105.75	105.75	105.75	105.75	105.75	105.75	105.75		
		103.75	103.75	103.75	103.75	103.75	103.75	103.75	103.75	103.75	103.75	103.75	103.75	103.75	103.75	103.75	103.75	103.75	103.75	103.75	103.75	103.75	103.75		
		101.75	101.75	101.75	101.75	101.75	101.75	101.75	101.75	101.75	101.75	101.75	101.75	101.75	101.75	101.75	101.75	101.75	101.75	101.75	101.75	101.75	101.75		
		99.75	99.75	99.75	99.75	99.75	99.75	99.75	99.75	99.75	99.75	99.75	99.75	99.75	99.75	99.75	99.75	99.75	99.75	99.75	99.75	99.75	99.75	99.75	
		97.75	97.75	97.75	97.75	97.75	97.75	97.75	97.75	97.75	97.75	97.75	97.75	97.75	97.75	97.75	97.75	97.75	97.75	97.75	97.75	97.75	97.75	97.75	
		95.75	95.75	95.75	95.75	95.75	95.75	95.75	95.75	95.75	95.75	95.75	95.75	95.75	95.75	95.75	95.75	95.75	95.75	95.75	95.75	95.75	95.75	95.75	
		93.75	93.75	93.75	93.75	93.75	93.75	93.75	93.75	93.75	93.75	93.75	93.75	93.75	93.75	93.75	93.75	93.75	93.75	93.75	93.75	93.75	93.75	93.75	
		91.75	91.75	91.75	91.75	91.75	91.75	91.75	91.75	91.75	91.75	91.75	91.75	91.75	91.75	91.75	91.75	91.75	91.75	91.75	91.75	91.75	91.75	91.75	
		89.75	89.75	89.75	89.75	89.75	89.75	89.75	89.75	89.75	89.75	89.75	89.75	89.75	89.75	89.75	89.75	89.75	89.75	89.75	89.75	89.75	89.75	89.75	
		TOTALS	2	1	1	6	4	8	10	29	28	31	33	37	26	25	20	8	5	5	3	1	1	0	287

#### SUMMARY STATISTICS

	MEAN	STD DEV	REGRESSION EQUATIONS	SE=EST	R
Y- WAIST HEIGHT/OMPHALION	105.47	5.27	.71*X	-	.16122
X- STATURE	174.07	6.82	1.20*Y	+	47.509

TABLE 17  
A DIVARIATE FREQUENCY TABLE FOR  
STATURE AND ELBOW HEIGHT

	STATURE																							
	153	155	157	159	161	163	165	167	169	171	173	175	177	179	181	183	185	187	189	191	193	195	197	TOT
.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	ALS
126.75																								1
124.75																								0
122.75																								1
120.75																								4
118.75																								6
116.75																								15
114.75																								25
112.75																								36
110.75																								50
108.75																								49
106.75																								40
104.75																								35
102.75																								31
100.75																								14
98.75																								3
96.75																								2
94.75																								2
TOTALS	2	1	1	6	4	6	10	29	28	31	33	37	28	25	20	8	5	5	3	1	1	0	1	267

SUMMARY STATISTICS

	MEAN	STU DEV	REGRESSION EQUATIONS	SE-EST	R
Y- ELBOW HEIGHT	109.40	5.05	*69*X -	10.709	.929
X- STATURE	174.07	6.82	1.25*Y +	37.321	2.52

TABLE 18  
A BIVARIATE FREQUENCY TABLE FOR  
STATURE AND BUTTOCK HEIGHT

		STATURE																								
		105.75																								
		103.75																								
		101.75																								
		99.75																								
		97.75																								
		95.75																								
		93.75																								
		91.75																								
		89.75																								
		87.75																								
		85.75																								
		83.75																								
		81.75																								
		79.75																								
		77.75																								
		75.75																								
		TOTALS																								
Y-	BUTTOCK HEIGHT	153	155	157	159	161	163	165	167	169	171	173	175	177	179	181	183	185	187	189	191	193	195	197	TOT	
X-	STATURE	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	ALS
		153	155	157	159	161	163	165	167	169	171	173	175	177	179	181	183	185	187	189	191	193	195	197	1	1
		105.75	103.75	101.75	99.75	97.75	95.75	93.75	91.75	89.75	87.75	85.75	83.75	81.75	79.75	77.75	75.75	TOTALS	1	1	1	1	1	1	1	1

#### SUMMARY STATISTICS

	MEAN	STD DEV	REGRESSION EQUATIONS	SE-EST	R
Y- BUTTOCK HEIGHT	89.41	5.07	$\cdot 63 \cdot X$	2.058	.852
X- STATURE	174.07	6.82	$1.15 \cdot Y$	71.254	3.56

TABLE 19  
A BIVARIATE FREQUENCY TABLE FOR  
STATURE AND KNUCKLE HEIGHT

		STATURE																					
		153 155 157 159 161 163 165 167 169 171 173 175 177 179 181 183 185 187 189 191 193 195 197 TOT																					
		.75 ALS																					
68.75		1	1	1	1	1	1	1	1	1	1	1	1	1	1								
86.75		1	1	1	1	1	1	1	1	1	1	1	1	1	1								
80.75		1	1	1	1	1	1	1	1	1	1	1	1	1	1								
84.75		1	1	1	1	1	1	1	1	1	1	1	1	1	1								
82.75		1	1	1	1	1	1	1	1	1	1	1	1	1	1								
80.75		1	1	1	1	1	1	1	1	1	1	1	1	1	1								
78.75		1	1	1	1	1	1	1	1	1	1	1	1	1	1								
76.75		1	1	1	1	1	1	1	1	1	1	1	1	1	1								
74.75		1	1	1	1	1	1	1	1	1	1	1	1	1	1								
72.75		1	1	1	1	1	1	1	1	1	1	1	1	1	1								
70.75		1	1	1	1	1	1	1	1	1	1	1	1	1	1								
68.75		1	1	1	1	1	1	1	1	1	1	1	1	1	1								
66.75		1	1	1	1	1	1	1	1	1	1	1	1	1	1								
64.75		1	1	1	1	1	1	1	1	1	1	1	1	1	1								
62.75		1	1	1	1	1	1	1	1	1	1	1	1	1	1								
TOTALS	2	1	1	6	4	8	10	29	28	31	33	37	28	25	20	8	5	5	3	1	1	1	267

198

SUMMARY STATISTICS

	MEAN	STD DEV	REGRESSION EQUATIONS	SE-EST	R
Y= KNUCKLE HEIGHT	75.51	4.11	.48*x -	.0048	.252
X= STATURE	174.07	6.82	1.31*y +	.75160	.417

	MEAN	STD DEV	REGRESSION EQUATIONS	SE-EST	R
Y= KNUCKLE HEIGHT	75.51	4.11	.48*x -	.0048	.252
X= STATURE	174.07	6.82	1.31*y +	.75160	.417

TABLE 20  
A BIVARIATE FREQUENCY TABLE FOR  
STATURE AND GLUTEAL FURROW HEIGHT

	STATURE											TOT												
	153	155	157	159	161	163	165	167	169	171	173	175	177	179	181	183	185	187	189	191	193	195	197	ALS
.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	
94.75																								
92.75																								
90.75																								
88.75																								
86.75																								
84.75																								
82.75																								
80.75																								
78.75																								
76.75																								
74.75																								
72.75	1																							
70.75		1																						
68.75			1																					
TOTALS	2	1	1	6	4	8	10	29	28	31	33	37	28	25	20	8	5	5	3	1	1	0	1	

#### SUMMARY STATISTICS

	MEAN	STD DEV	REGRESSION EQUATIONS	SE-EST	R
Y- GLUTEAL FURROW HEIGHT	80.37	4.42	.54*x -	13.626	.247
X- STATURE	174.07	6.82	+ 1.28*y	71.196	.826

TABLE 21

A BIVARIATE FREQUENCY TABLE FOR  
STATURE AND TIBIALE HEIGHT

## STATURE

	153	155	157	159	161	163	165	167	169	171	173	175	177	179	181	183	185	187	189	191	193	195	197	TOT
.75	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
55.75																								2
54.75																								3
53.75																								2
52.75																								16
51.75																								21
50.75																								28
49.75																								31
48.75																								39
47.75																								41
46.75																								44
45.75																								25
44.75																								11
43.75																								6
42.75																								7
41.75																								4
40.75	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
TOTALS	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3

NUMBER EXCLUDED TOTAL <sup>4</sup> 287

## SUMMARY STATISTICS

	MEAN	STD DEV	REGRESSION EQUATIONS	SE-EST	R
Y- TIBIALE HEIGHT	47.64	6.30	.348X - .464Y	11.544	.85
X- STATURE	174.07	6.82	.464Y	155.017	.34

TABLE 22

A BIVARIATE FREQUENCY TABLE FOR  
STATURE AND SITTING HEIGHT

	STATURE																							TOT	ALS
	153	155	157	159	161	163	165	167	169	171	173	175	177	179	181	183	185	187	189	191	193	195	197	TOT	ALS
190.25																								1	2
99.25																								1	2
98.25																								1	2
97.25																								1	2
96.25																								1	2
95.25																								1	2
94.25																								1	2
93.25																								1	2
92.25																								1	2
91.25																								1	2
90.25																								1	2
89.25																								1	2
88.25																								1	2
87.25																								1	2
86.25																								1	2
85.25																								1	2
84.25																								1	2
83.25																								1	2
82.25																								1	2
81.25																								1	2
80.25																								1	2
79.25																								1	2
78.25																								1	2
TOTALS	2	1	1	6	4	6	10	29	31	33	37	28	25	20	8	5	5	3	1	1	1	0	1	267	

## SUMMARY STATISTICS

	MEAN	S.D.	DEV	REGRESSION EQUATIONS	SE-EST	R
Y- SITTING HEIGHT	69.34	3.63	.384X + 23.195	2.53	.717	
X- STATURE	174.07	6.82	1.354Y + 53.461	4.76		

TABLE 23

## A BIVARIATE FREQUENCY TABLE FOR STATURE AND EYE HEIGHT: SITTING

SUMMARY STATISTICS

	MEAN	STD DEV	REGRESSION EQUATIONS	SE-EST	R
$y =$ EYE HEIGHT, SITTING	77.42	3.39	$.348x + .348$	1.50	.976
$x =$ STATURE	174.07	0.62	$1.368y + 68.767$	5.03	

TABLE 24  
A BIVARIATE FREQUENCY TABLE FOR  
STATURE AND MIDSHOULDER HEIGHT

		STATURE																									
		STATURE																									
		STATURE																									
		153	155	157	159	161	163	165	167	169	171	173	175	177	179	181	183	185	187	189	191	193	195	197	TOT		
.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	ALS	1
69.25																										2	
68.25																										6	
67.25																										4	
66.25																										10	
65.25																										16	
64.25																										22	
63.25																										25	
62.25																										45	
61.25																										43	
60.25																										27	
59.25																										39	
58.25																										26	
57.25																										16	
56.25																										8	
55.25																										3	
54.25																										2	
TOTALS	2	1	1	6	4	8	10	29	26	31	33	37	28	25	20	8	5	5	3	1	1	0	1	207			

SUMMARY STATISTICS

	MEAN	STD DEV	REGRESSION EQUATIONS	SE=EST	R
Y- MIDSHOULDER HEIGHT	61.39	3.03	*31*x + 7.426	7.426	.218
X- STATURE	174.07	6.82	1.56*y + 76.307	4.92	.693

TABLE 25  
A BIVARIATE FREQUENCY TABLE FOR  
STATURE AND KNEE HEIGHT

	STATURE																		TOT	ALS		
	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75
62.75	153	155	157	159	161	163	165	167	169	171	173	175	177	179	181	183	185	187	189	191	193	197
61.75																			1	1	4	3
60.75																						5
59.75																						15
58.75																						19
57.75																						18
56.75																						36
55.75																						39
54.75																						36
53.75																						37
52.75																						31
51.75																						18
50.75																						12
49.75																						5
48.75																						4
47.75																						2
TOTALS	2	1	1	6	4	8	10	29	28	31	33	37	28	25	20	8	5	5	3	1	1	3

#### SUMMARY STATISTICS

	MEAN	STD DEV	REGRESSION EQUATIONS	SE-EST	R
Y- KNEE HEIGHT	55.10	3.02	$.384x$	-	1.052
X- STATURE	174.07	6.82	$1.95y$	+	66.636

TABLE 26

A BIVARIATE FREQUENCY TABLE FOR  
STATURE AND POPLITEAL HEIGHT

## STATURE

	153	155	157	159	161	163	165	167	169	171	173	175	177	179	181	183	185	187	189	191	193	195	197	TOT
	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	ALS
52.25																								1
51.25																								2
50.25																								2
49.25																								19
48.25																								14
47.25																								24
46.25																								32
45.25																								36
44.25																								41
43.25																								46
42.25																								34
41.25																								37
40.25																								15
39.25																								5
38.25																								3
TOTALS	2	1	1	0	4	8	10	29	26	31	33	37	28	25	20	6	5	5	3	1	1	0	1	287

## SUMMARY STATISTICS

	MEAN	STD DEV	REGRESSION EQUATIONS	SE-EST	R
V- POPLITEAL HEIGHT	44.627	2.72	.344X	-	14.912
X- STATURE	174.07	6.62	2.134Y	+	3.62

TABLE 27

## A BIVARIATE FREQUENCY TABLE FOR STATURE AND SHOULDER-ELBOW LENGTH

SUMMARY STATISTICS

	MEAN	STD DEV	REGRESSION EQUATIONS	SE-EST	R
Y- SHOULDER-ELBOW LENGTH	36.32	1.85	.22*x -	1.980	1.07
X- STATURE	174.07	6.62	.300*y +	65.126	.93

TABLE 28  
A BIVARIATE FREQUENCY TABLE FOR  
STATURE AND ELBOW-FINGERTIP LENGTH

	STATURE										TOT												
	153	155	157	159	161	163	165	167	169	171	173	175	177	179	181	183	185	187	189	191	193	195	197
.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75
54.25																							
53.25																							
52.25																							
51.25																							
50.25																							
49.25																							
48.25																							
47.25																							
46.25																							
45.25																							
44.25																							
43.25																							
42.25																							
41.25																							
40.25																							
TOTALS	2	1	1	0	4	8	10	29	28	31	33	37	26	25	20	8	5	5	3	1	1	0	2

#### SUMMARY STATISTICS

	MEAN	STD DEV	REGRESSION EQUATIONS	SE-EST	R
Y- ELBOW-FINGERTIP LENGTH	47.77	2.47	$\cdot 27 \cdot X$	.771	.62
X- STATURE	174.07	6.82	$2.08 \cdot Y$	74.079	.46

TABLE 29

A BIVARIATE FREQUENCY TABLE FOR  
STATURE AND BUTTOCK-KNEE LENGTH

## STATURE

	153	155	157	159	161	163	165	167	169	171	173	175	177	179	181	183	185	187	189	191	193	195	197	TOT
70.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	ALS
69.75																								1
68.75																								1
67.75																								0
66.75																								2
65.75																								6
64.75																								14
63.75																								12
62.75																								23
61.75																								35
60.75																								33
59.75																								34
58.75																								35
57.75																								28
56.75																								27
55.75																								17
54.75																								10
53.75	1	1	1	2	1	2	1	2	1	2	1	2	1	1	1	1	1	1	1	1	1	1	1	6
52.75	1	1	1	6	4	8	10	29	28	31	33	37	28	25	20	8	5	5	3	1	1	0	1	2
TOTALS	2	1	1	6	4	8	10	29	28	31	33	37	28	25	20	8	5	5	3	1	1	0	1	287

## SUMMARY STATISTICS

	MEAN	STD DEV	REGRESSION EQUATIONS	SE-EST	<sup>2</sup>
Y- BUTTOCK-KNEE LENGTH	60.78	3.07	.374X - 1.84*Y	3.626	1.72
X- STATURE	174.07	6.82	+ 62.237	3.83	.828

TABLE 30  
A BIVARIATE FREQUENCY TABLE FOR  
CHEST HEIGHT AND CHEST CIRCUMFERENCE

		CHEST HEIGHT												TOT	ALS	
		.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75
		110	112	114	116	118	120	122	124	126	128	130	132	134	136	138
		110.75	110.75	110.75	110.75	110.75	110.75	110.75	110.75	110.75	110.75	110.75	110.75	110.75	110.75	110.75
		108.75	108.75	108.75	108.75	108.75	108.75	108.75	108.75	108.75	108.75	108.75	108.75	108.75	108.75	108.75
		106.75	106.75	106.75	106.75	106.75	106.75	106.75	106.75	106.75	106.75	106.75	106.75	106.75	106.75	106.75
		104.75	104.75	104.75	104.75	104.75	104.75	104.75	104.75	104.75	104.75	104.75	104.75	104.75	104.75	104.75
		102.75	102.75	102.75	102.75	102.75	102.75	102.75	102.75	102.75	102.75	102.75	102.75	102.75	102.75	102.75
		100.75	100.75	100.75	100.75	100.75	100.75	100.75	100.75	100.75	100.75	100.75	100.75	100.75	100.75	100.75
		98.75	98.75	98.75	98.75	98.75	98.75	98.75	98.75	98.75	98.75	98.75	98.75	98.75	98.75	98.75
		96.75	96.75	96.75	96.75	96.75	96.75	96.75	96.75	96.75	96.75	96.75	96.75	96.75	96.75	96.75
		94.75	94.75	94.75	94.75	94.75	94.75	94.75	94.75	94.75	94.75	94.75	94.75	94.75	94.75	94.75
		92.75	92.75	92.75	92.75	92.75	92.75	92.75	92.75	92.75	92.75	92.75	92.75	92.75	92.75	92.75
		90.75	90.75	90.75	90.75	90.75	90.75	90.75	90.75	90.75	90.75	90.75	90.75	90.75	90.75	90.75
		88.75	88.75	88.75	88.75	88.75	88.75	88.75	88.75	88.75	88.75	88.75	88.75	88.75	88.75	88.75
		86.75	86.75	86.75	86.75	86.75	86.75	86.75	86.75	86.75	86.75	86.75	86.75	86.75	86.75	86.75
		84.75	84.75	84.75	84.75	84.75	84.75	84.75	84.75	84.75	84.75	84.75	84.75	84.75	84.75	84.75
		82.75	82.75	82.75	82.75	82.75	82.75	82.75	82.75	82.75	82.75	82.75	82.75	82.75	82.75	82.75
		80.75	80.75	80.75	80.75	80.75	80.75	80.75	80.75	80.75	80.75	80.75	80.75	80.75	80.75	80.75
		78.75	78.75	78.75	78.75	78.75	78.75	78.75	78.75	78.75	78.75	78.75	78.75	78.75	78.75	78.75
<b>TOTALS</b>		2	1	4	5	12	23	37	48	33	36	26	18	12	3	2
																1
																287

#### SUMMARY STATISTICS

	MEAN	STD DEV	REGRESSION EQUATIONS	SE-EST	R
<i>y-</i>	92.90	6.60	$.28^*x$	.57.223	.41
<i>x-</i>	127.43	3.67	$.20^*y$	1.08.846	.238

TABLE 31

A BIVARIATE FREQUENCY TABLE FOR  
WAIST HEIGHT/NATURAL AND WAIST HEIGHT/OMPHALION

## WAIST HEIGHT/NATURAL

	90	92	94	96	98	100	102	104	106	108	110	112	114	116	118	TOT
.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	ALS
119.75																1
117.75																1
115.75																3
113.75																1
111.75																6
109.75																17
107.75																19
105.75																26
103.75																43
101.75																40
99.75																53
97.75																30
95.75																20
93.75																12
91.75																6
89.75																1
TOTALS	4	6	17	14	22	33	33	54	25	31	23	7	13	3	2	267

## SUMMARY STATISTICS

	MEAN	STD DEV	REGRESSION EQUATIONS	SE-EST	R
Y= WAIST HEIGHT/OMPHALION	105.47	5.27	.81*x + 21.135	2.51	
X= WAIST HEIGHT/NATURAL	104.12	5.75	.96*y + 2.667	2.74	.879

TABLE 32  
A BIVARIATE FREQUENCY TABLE FOR  
WAIST HEIGHT/NATURAL AND WAIST CIRCUMFERENCE/NATURAL

WAIST HEIGHT/NATURAL

	90	92	94	96	98	100	102	104	106	108	110	112	114	116	118	TOT
	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	ALS
107.75																1
105.75	1															1
103.75		1														2
101.75			1													1
99.75				1												2
97.75					1											1
95.75	1					1										5
93.75		1					1									2
91.75			1					1								1
89.75				1					2							6
87.75					1					1						6
85.75						1					2					19
83.75							1					3				13
81.75								1					4			1
79.75									2							13
77.75										1						24
75.75										3						21
73.75											13					51
71.75												10				43
69.75	1															27
67.75	1															16
65.75	1															13
63.75																4
TOTALS	4	6	17	14	22	33	33	54	25	31	23	7	13	3	2	287

SUMMARY STATISTICS

	MEAN	STD DEV	REGRESSION EQUATIONS	SE-EEST	R
Y-WAIST CIRCUMFERENCE/NATURAL	70.68	8.04	$.11^*X + .65^*Y$	67.223	0.01
X-WAIST HEIGHT/NATURAL	104.12	2.75		99.398	5.73

TABLE 33

A BIVARIATE FREQUENCY TABLE FOR  
WAIST HEIGHT/NATURAL AND GLUTEAL FURROW HEIGHT

## WAIST HEIGHT/NATURAL

	.90	.92	.94	.96	.98	1.00	1.02	1.04	1.06	1.08	1.10	1.12	1.14	1.16	1.18	TOT	ALS
	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	1	1
94.75																0	0
92.75																1	1
90.75																1	3
88.75																2	15
86.75																1	13
84.75																2	25
82.75																3	44
80.75																2	58
78.75																1	49
76.75	1	2	3	3	3	3	10	13	13	13	5	2	2	2	1	39	
74.75	1	1	7	6	2	2	1	3	1	3	1	2	1	1	1	21	
72.75	1	2	5	2	3	2	1	3	1	3	1	2	1	1	1	13	
70.75	1	1	2	1	2	1	1	1	1	1	1	1	1	1	1	4	
68.75	1															1	1
66.75	1															1	1
TOTALS	4	6	17	14	22	33	33	54	25	31	23	7	13	3	2	287	

212

## SUMMARY STATISTICS

	MEAN	STD DEV	REGRESSION EQUATIONS	SE-EST	$\Sigma$
Y- GLUTEAL FURROW HEIGHT	60.37	4.42	$.65^*x$	12.695	2.35
X- WAIST HEIGHT/NATURAL	104.12	5.75	$1.10^*y$	15.710	3.06

TABLE 34

A BIVARIATE FREQUENCY TABLE FOR  
WAIST HEIGHT/OMPHALION AND WAIST CIRCUMFERENCE/OMPHALION

## WAIST HEIGHT/OMPHALION

	.89	.91	.93	.95	.97	.99	.101	.103	.105	.107	.109	.111	.113	.115	.117	.119	TOT	ALS
	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	TOT	
107.75																	1	2
105.75																	1	2
103.75																	1	2
101.75																	1	2
99.75																	1	2
97.75																	1	2
95.75																	1	2
93.75																	1	2
91.75																	1	2
89.75																	1	2
87.75																	1	2
85.75																	1	2
83.75																	1	2
81.75																	1	2
79.75																	1	2
77.75																	1	2
75.75																	1	2
73.75																	1	2
71.75																	1	2
69.75																	1	2
67.75																	1	2
65.75																	1	2
63.75																	1	2
TOTALS	2	1	6	8	12	23	30	33	40	43	26	19	17	6	3	1	287	

## SUMMARY STATISTICS

	MEAN	STD DEV	REGRESSION EQUATIONS	SE-EST	R
Y-WAIST CIRCUMFERENCE/OMPHALION	78.087	8.29	$\cdot 494X + 48.288$	8.15	.185
X-WAIST HEIGHT/OMPHALION	105.47	5.27	$\cdot 124Y + 96.005$	5.16	

TABLE 35  
A BIVARIATE FREQUENCY TABLE FOR  
ELBOW HEIGHT AND KNUCKLE HEIGHT

ELBOW HEIGHT

	.94	.96	.98	1.00	1.02	1.04	1.06	1.08	1.10	1.12	1.14	1.16	1.18	1.20	1.22	1.24	1.26	TOT	ALS
.75	•75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	1	1
88.75																		4	4
86.75																		1	1
84.75																		12	12
82.75																		1	1
80.75																		23	23
78.75																		43	43
76.75																		51	51
74.75																		53	53
72.75																		49	49
70.75																		29	29
68.75																		12	12
66.75	1	1	1	2	1													6	6
64.75					2													2	2
62.75	1																		
TOTALS	2	2	3	14	11	35	40	44	50	36	25	15	8	4	1	0	1	287	

SUMMARY STATISTICS

	MEAN	STD DEV	REGRESSION EQUATIONS	SE-EST	R
Y- KNUCKLE HEIGHT	75.51	4.11	•70*x - 1.05*y	1.074	2.11
X- ELBOW HEIGHT	109.40	5.05	+ 30.120	2.59	.859

TABLE 36  
A BIVARIATE FREQUENCY TABLE FOR  
BUTTOCK HEIGHT AND HIP CIRCUMFERENCE

BUTTOCK HEIGHT

	.75	.75	.75	.75	.81	.83	.85	.87	.89	.91	.93	.95	.97	.99	.101	.103	.105	.TOT	ALS
114.75																		1	2
112.75																		1	2
110.75																		1	7
108.75																			6
106.75	1																		11
104.75																			7
102.75																			25
100.75	1	1	1	1	3	3	3	3	3	1	2	1	2	1	2	1	1	23	
98.75																			27
96.75	2	2	1	1	1	1	2	5	4	5	5	1	1	1	1	1	1	25	
94.75																			33
92.75																			41
90.75	1	3	3	5	2	5	2	11	8	5	3	4	1	1	1	1	1	15	
88.75	3	2	2	3	4	4	6	10	8	2	2	1	1	1	1	1	1	36	
86.75	1	1	2	4	4	4	2	1	1	1	1	1	1	1	1	1	1	3	
TOTALS	1	5	10	12	24	27	45	48	46	27	1	1	1	1	1	1	1	207	

SUMMARY STATISTICS

	MEAN	STD DEV	REGRESSION EQUATIONS	SE-EST	R
Y- HIP CIRCUMFERENCE	95.14	6.04	.37*x	.62 .062	.575
X- BUTTOCK HEIGHT	89.41	5.07	.26*y	.64 .671	.482

TABLE 37  
A BIVARIATE FREQUENCY TABLE FOR  
BUTTOCK HEIGHT AND GLUTEAL FURROW HEIGHT

BUTTOCK HEIGHT

	.75	.77	.79	.81	.83	.85	.87	.89	.91	.93	.95	.97	.99	1.01	1.03	1.05	TOT
	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	ALS
94.75																	1
92.75																	1
90.75																	3
88.75																	15
86.75																	13
84.75																	25
82.75																	44
80.75																	58
78.75																	49
76.75																	39
74.75																	21
72.75																	13
70.75																	4
68.75																	1
TOTALS	1	5	10	12	24	27	45	48	46	27	22	11	5	2	1	1	287

SUMMARY STATISTICS

	MEAN	STD DEV	REGRESSION EQUATIONS	SE-EST	R
Y- GLUTEAL FURROW HEIGHT	80.37	4.42	$•75^*X$	1.0.633	1.93
X- BUTTOCK HEIGHT	69.41	5.07	$1.03^*Y$	6.026	2.22

TABLE 38  
A BIVARIATE FREQUENCY TABLE FOR  
ACROMION-RADIALE AND RADIALE-STYLIUM

ACROMION-RADIALE

	28	26	29	29	30	30	31	31	32	32	33	33	34	34	35	35	36	36	37	37	38	38	39	39	TOT
	.0	.50	.0	.50	.0	.50	.0	.50	.0	.50	.0	.50	.0	.50	.0	.50	.0	.50	.0	.50	.0	.50	.0	.50	ALS
31.50																									1
31.00																									0
30.50																									5
30.00																									6
29.50																									12
29.00																									22
28.50																									27
28.00																									36
27.50																									26
27.00																									33
26.50																									47
26.00																									29
25.50																									13
25.00																									11
24.50																									6
24.00																									4
23.50																									1
23.00																									0
22.50																									1
22.00	1																								1
21.50	1	0	1	2	2	4	5	7	12	21	38	28	25	31	26	23	23	13	12	8	2	2	1	1	
TOTALS	1	0	2	2	4	5	7	12	21	38	28	25	31	26	23	23	13	12	8	2	2	1	1	267	

SUMMARY STATISTICS

	MEAN	STD DEV	REGRESSION EQUATIONS	SE=EST	R <sup>2</sup>
Y- RADIALE-STYLIUM	26.84	1.57	*63*X + .64*Y	5.564	1.08
X- ACROMION-RADIALE	33.74	1.82	- .64*Y	11.195	1.25

TABLE 39  
A BIVARIATE FREQUENCY TABLE FOR  
SITTING HEIGHT AND EYE HEIGHT: SITTING

## SUMMARY STATISTICS

EYE HEIGHT, SITTING	77.42	3.39	.88*	-	1.205	1.14	.941
SITTING HEIGHT	69.34	3.63	1.01*	+	11.152	1.22	

TABLE 46  
A BIVARIATE FREQUENCY TABLE FOR  
FOOT LENGTH AND FOOT BREADTH

	FOOT LENGTH										
	22	23	24	25	26	27	28	29	29	TOT	ALS
•50	0	50	0	50	0	50	0	50	0	50	1
11.55	22	23	24	25	26	27	28	29	29	29	1
11.35	22	23	24	25	26	27	28	29	29	29	1
11.15	22	23	24	25	26	27	28	29	29	29	1
10.95	22	23	24	25	26	27	28	29	29	29	1
10.75	22	23	24	25	26	27	28	29	29	29	1
10.55	22	23	24	25	26	27	28	29	29	29	1
10.35	22	23	24	25	26	27	28	29	29	29	1
10.15	22	23	24	25	26	27	28	29	29	29	1
9.95	22	23	24	25	26	27	28	29	29	29	1
9.75	22	23	24	25	26	27	28	29	29	29	1
9.55	22	23	24	25	26	27	28	29	29	29	1
9.35	22	23	24	25	26	27	28	29	29	29	1
9.15	22	23	24	25	26	27	28	29	29	29	1
8.95	22	23	24	25	26	27	28	29	29	29	1
8.75	22	23	24	25	26	27	28	29	29	29	1
8.55	22	23	24	25	26	27	28	29	29	29	1
8.35	22	23	24	25	26	27	28	29	29	29	1
8.15	22	23	24	25	26	27	28	29	29	29	1
TOTALS	1	0	4	6	8	10	12	13	14	16	7
											286
											287
											1
											NUMBER EXCLUDED
											TOTAL

#### SUMMARY STATISTICS

	MEAN	STD DEV	REGRESSION EQUATIONS	SE-EST	R
Y= FOOT BREADTH	9.88	.81	.30*x + 1.96*y	1.883	.52
X= FOOT LENGTH	26.66	2.00		7.295	1.32

TABLE 41

## A BIVARIATE FREQUENCY TABLE FOR FOOT LENGTH AND FOOT CIRCUMFERENCE

SUMMARY STATISTICS

	MEAN	STU DEV	REGRESSION EQUATIONS	SE-EST	R
FOOT CIRCUMFÉRENCE	25.15	1.29	$.234x + .594y$	19.022 11.623	1.19 1.92
FOOT LENGTH	26.66	2.06			

TABLE 42  
A BIVARIATE FREQUENCY TABLE FOR  
INTERSCYE FRONT AND INTERSCYE BACK

SUMMARY STATISTICS

	MEAN	STO DEV	REGRESSION EQUATIONS	SE-EST	R
INTERSCYE BACK	41.02	2.81	$.51^*X + .25^*Y$	.318	.62
INTERSCYE FRONT	36.67	1.96	$.25^*Y$	.413	.83

TABLE 43  
A BIVARIATE FREQUENCY TABLE FOR  
WAIST FRONT AND WAIST BACK

	WAIST FRONT																	
	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	TOT
.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	ALS
52.75																		2
51.75																		6
50.75																		9
49.75																		10
48.75																		14
47.75																		26
46.75																		33
45.75																		34
44.75																		33
43.75																		35
42.75																		15
41.75																		15
40.75																		13
39.75																		7
38.75																		5
37.75																		5
TOTALS	2	0	9	7	9	19	34	34	44	36	27	24	14	13	9	5	1	287

SUMMARY STATISTICS

	MEAN	STD DEV	REGRESSION EQUATIONS	SE-EST	R
WAIST BACK	44.90	3.20	.68*x + 16.989	2.45	.045
WAIST FRONT	41.05	3.03	.61*y + 13.657	2.32	

Y-

X-

TABLE 44  
A BIVARIATE FREQUENCY TABLE FOR  
GLUTEAL FURROW HEIGHT AND TIBIALE HEIGHT

GLUTEAL FURROW HEIGHT

	.66	.68	.70	.72	.74	.76	.78	.80	.82	.84	.86	.88	.90	.92	.94	TOT	ALS
.75	66	68	70	72	74	76	78	80	82	84	86	88	90	92	94	2	3
54.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	1	1
53.75																3	2
52.75																16	16
51.75																21	21
50.75																28	28
49.75																31	31
48.75																39	39
47.75																41	41
46.75																44	44
45.75																25	25
44.75																11	11
43.75																6	6
42.75																7	7
41.75																4	4
40.75																3	3
TOTALS	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	283

NUMBER EXCLUDED <sup>4</sup>  
TOTAL 287

SUMMARY STATISTICS

	MEAN	STD DEV	REGRESSION EQUATIONS	SE-EST	R
Y- TIBIALE HEIGHT	47.64	6.30	.56*X +	2.633	.5078
X- GLUTEAL FURROW HEIGHT	80.37	4.42	.28*Y +	67.032	.4006

TABLE 45

## A BIVARIATE FREQUENCY TABLE FOR HEAD CIRCUMFERENCE AND HEAD LENGTH

HEAD CIRCUMFERENCE

	TOT	ALS
21.45	1	1
21.25	1	1
21.05	1	1
20.85	1	1
20.65	1	1
20.45	1	1
20.25	1	1
20.05	1	1
19.85	1	1
19.65	1	1
19.45	1	1
19.25	1	1
19.05	1	1
18.85	1	1
18.65	1	1
18.45	1	1
18.25	1	1
18.05	1	1
17.85	1	1
17.65	1	1
17.45	1	1
TOTALS	1	1

## SUMMARY STATISTICS

	MEAN	STD DEV	REGRESSION EQUATIONS	SE-EST	R
Y- HEAD LENGTH	19.47	.74	.354X	.134	.40
X- HEAD CIRCUMFERENCE	56.01	1.63	.190Y	.117	.93

TABLE 46  
A BIVARIATE FREQUENCY TABLE FOR  
HEAD CIRCUMFERENCE AND HEAD BREADTH

		HEAD CIRCUMFERENCE																			
		51	52	53	54	55	56	57	58	59	60	TOT	ALS								
		.50	.50	.50	.50	.50	.50	.50	.50	.50	.50	.50	.50								
16.75												1									
16.55												1		1							
16.35												1		2							
16.15												1		3							
15.95												1		7							
15.75												1		20							
15.55												1		34							
15.35												1		24							
15.15		1	2	3	3	3	4	5	5	4	1	1		53							
14.95		1	2	1	3	5	5	5	3	3	1	2		39							
14.75		1	2	4	3	5	5	5	3	7	4	1		39							
14.55		2	1	3	2	4	4	3	2	3	1	1		25							
14.35		2	1	1	2	2	3	2	2	1	1	1		15							
14.15		2	1	1	1	1	2	2	1	1	1	1		16							
13.95		1	1	1	1	1	1	1	1	1	1	1		4							
13.75		1	1	1	1	1	1	1	1	1	1	1		2							
TOTALS		1	4	6	5	9	14	22	23	43	33	35	32	22	13	11	9	3	1	1	287

#### SUMMARY STATISTICS

	MEAN	STD DEV	REGRESSION EQUATIONS	SE-EST	R
Y- HEAD BREADTH	15.06	.54	.20*x + 3.854	.43	.599
X- HEAD CIRCUMFERENCE	56.01	1.63	1.82*y + 28.006	1.30	

TABLE 47

A BIVARIATE FREQUENCY TABLE FOR  
HEAD LENGTH AND HEAD BREADTH

	HEAD LENGTH																		
	16	17	17	17	17	18	18	18	19	19	19	19	20	20	20	20	21	21	TOT
.85	.5	.25	.45	.65	.85	.5	.25	.45	.65	.85	.5	.25	.45	.65	.85	.5	.25	.45	ALS
16.75																			1
16.55																			3
16.35																			2
16.15																			3
15.95																			7
15.75																			20
15.55																			34
15.35																			24
15.15	1																		53
14.95																			39
14.75																			39
14.55																			25
14.35																			15
14.15																			16
13.95																			4
TOTALS	1	0	0	1	3	6	7	5	14	17	27	41	46	29	24	17	13	16	2

226

## SUMMARY STATISTICS

	MEAN	STD DEV	REGRESSION EQUATIONS	SE-EST	R
Y- HEAD BREADTH	15.06	.54	$.134X + 12.525$	.53	.171
X- HEAD LENGTH	19.47	.70	$.224Y + 16.156$	.69	

TABLE 48

## A BIVARIATE FREQUENCY TABLE FOR CHEST CIRCUMFERENCE AND WAIST CIRCUMFERENCE/NATURAL

CHEST CIRCUMFERENCE										
78	80	82	84	86	88	90	92	94	96	98
.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75
107.75	105.75	103.75	101.75	99.75	97.75	95.75	93.75	91.75	89.75	87.75
105.75	103.75	101.75	99.75	97.75	95.75	93.75	91.75	89.75	87.75	85.75
103.75	101.75	99.75	97.75	95.75	93.75	91.75	89.75	87.75	85.75	83.75
101.75	99.75	97.75	95.75	93.75	91.75	89.75	87.75	85.75	83.75	81.75
99.75	97.75	95.75	93.75	91.75	89.75	87.75	85.75	83.75	81.75	79.75
97.75	95.75	93.75	91.75	89.75	87.75	85.75	83.75	81.75	79.75	77.75
95.75	93.75	91.75	89.75	87.75	85.75	83.75	81.75	79.75	77.75	75.75
93.75	91.75	89.75	87.75	85.75	83.75	81.75	79.75	77.75	75.75	73.75
91.75	89.75	87.75	85.75	83.75	81.75	79.75	77.75	75.75	73.75	71.75
89.75	87.75	85.75	83.75	81.75	79.75	77.75	75.75	73.75	71.75	69.75
87.75	85.75	83.75	81.75	79.75	77.75	75.75	73.75	71.75	69.75	67.75
85.75	83.75	81.75	79.75	77.75	75.75	73.75	71.75	69.75	67.75	65.75
83.75	81.75	79.75	77.75	75.75	73.75	71.75	69.75	67.75	65.75	63.75
81.75	79.75	77.75	75.75	73.75	71.75	69.75	67.75	65.75	63.75	TOTALS
79.75	77.75	75.75	73.75	71.75	69.75	67.75	65.75	63.75	61.75	1
77.75	75.75	73.75	71.75	69.75	67.75	65.75	63.75	61.75	59.75	1
75.75	73.75	71.75	69.75	67.75	65.75	63.75	61.75	59.75	57.75	1
73.75	71.75	69.75	67.75	65.75	63.75	61.75	59.75	57.75	55.75	1
71.75	69.75	67.75	65.75	63.75	61.75	59.75	57.75	55.75	53.75	1
69.75	67.75	65.75	63.75	61.75	59.75	57.75	55.75	53.75	51.75	1
67.75	65.75	63.75	61.75	59.75	57.75	55.75	53.75	51.75	49.75	1
65.75	63.75	61.75	59.75	57.75	55.75	53.75	51.75	49.75	47.75	1
63.75	61.75	59.75	57.75	55.75	53.75	51.75	49.75	47.75	45.75	1
TOTALS	61.75	59.75	57.75	55.75	53.75	51.75	49.75	47.75	45.75	43

SUMMARY STATISTICS

	MEAN	STD. DEV.	REGRESSION EQUATIONS	SE-EST	R
Y-MAIST CIRCUMFERENCE/NATURAL	78.68	.80	$1.04^*X - 17.943$	.4022	.851
X-CHEST CIRCUMFERENCE	92.90	6.60	$.70^*Y + 37.830$	3.46	

TABLE 49  
A BIVARIATE FREQUENCY TABLE FOR  
HAND LENGTH AND PALM LENGTH

	HAND LENGTH									TOT	
	16	16	17	17	18	18	19	19	20	20	21
• 6	• 50	• 0	• 50	• 0	• 50	• 0	• 50	• 0	• 50	• 0	• 50
12.05										2	5
11.85										1	11
11.65										8	9
11.45										1	13
11.25										4	1
11.05										6	26
10.85										13	47
10.65										2	37
10.45										14	35
10.25										8	32
10.05										10	26
9.85										5	18
9.65										2	10
9.45										1	5
9.25										1	2
9.05	1	1									1
TOTALS	1	3	5	21	45	39	51	59	32	23	6

#### SUMMARY STATISTICS

	MEAN	STD DEV	REGRESSION EQUATIONS	SE-EST	R
PALM LENGTH	10.75	.58	$\cdot 234X + .680$	.26	.894
HAND LENGTH	19.00	.93	$1.524Y + 2.060$	.44	

TABLE 50  
A BIVARIATE FREQUENCY TABLE FOR  
HAND LENGTH AND HAND CIRCUMFERENCE

		HAND LENGTH															TOT		ALS	
		16					17					18					19	20	21	22
		.0	.50	.0	.50	.0	.50	.0	.50	.0	.50	.0	.50	.0	.50	.0	.50	.0	.50	TOT
24.00																				2
23.50																				2
23.00																				2
22.50																				2
22.00																				2
21.50																				2
21.00																				2
20.50																				2
20.00																				2
19.50																				2
19.00																				2
18.50																				2
18.00																				2
TOTALS	1	3	5	21	45	39	51	59	32	23	6	2	287							1

#### SUMMARY STATISTICS

Y-	HAND CIRCUMFERENCE	MEAN	STD DEV	REGRESSION EQUATIONS	SE-EST	R
X-	HAND LENGTH	21.11	1.00	.59*x	.901	.01
		19.00	.99	.58*y	6.756	.80

TABLE 51

A BIVARIATE FREQUENCY TABLE FOR  
HAND LENGTH AND HAND BREADTH

## HAND LENGTH

	16	16	17	17	18	18	19	19	20	20	21	21	TOT
	. 0	. 50	. 0	. 50	. 0	. 50	. 0	. 50	. 0	. 50	. 0	. 50	ALS
16.00													1
9.90													1
9.80													7
9.70													7
9.60													7
9.50													13
9.40													11
9.30													19
9.20													19
9.10													26
9.00													23
8.90													29
8.80													16
8.70													25
8.60													27
8.50													16
8.40													11
8.30													11
8.20													10
8.10													1
8.00													1
7.90	1		1										2
7.80		1		1									2
TOTALS	1	3	5	21	1	5	39	51	59	32	23	6	287

## SUMMARY STATISTICS

	MEAN	STD DEV	REGRESSION EQUATIONS	SE-EST	R
Y- HAND BREADTH	8.92	.43	.26*x + 1.37*y	.983	.34
X- HAND LENGTH	19.00	.49		6.776	.79

**INDEX BY NAME, ANATOMICAL LOCATION, AND MEASUREMENT TECHNIQUE**

ACROMION/SEE SHOULDER		BACK CURVATURE-HIP	46C
ACROMION-RADIALE LENGTH	9T	BACK CURVATURE-WAIST	45C
ANKLES		BENT KNEE HEIGHT, SUPINE	13W
ANKLE CIRCUMFERENCE	40C	BENT TORSO	
HEEL-ANKLE CIRCUMFERENCE	63C	BENT TORSO BREADTH	10W
SPHYRION HEIGHT	69C	BENT TORSO HEIGHT	9W
ANKLE CIRCUMFERENCE	40C	BIACROMIAL BREADTH	16T
ARCS		BICEPS/SEE UPPER ARM	
BACK CURVATURE-CHEST	44C	BITRAGION BREADTH	14H
BACK CURVATURE-HIP	46C	BITRAGION-CORONAL ARC	2H
BACK CURVATURE-WAIST	45C	BITRAGION-FRONTAL ARC	3H
BITRAGION-CORONAL ARC	2H	BITRAGION-MENTON ARC	4H
BITRAGION-FRONTAL ARC	3H	BITRAGION-SUBMANDIBULAR ARC	5H
BITRAGION-MENTON ARC	4H	SAGITTAL ARC	1H
ARMS		BITRAGION-SUBMANUIBULAR ARC	5H
ACROMION-RADIALE LENGTH	9T	BREADTHS	
BICEPS CIRCUMFERNCE/FLEXED	33C	BENT TORSO BREADTH	10W
BICEPS CIRCUMFRNCE/RELAXED	23T	BIACROMIAL BREADTH	16T
ELBOW-FINGERTIP LENGTH	14C	BILOCULAR BREADTH	27H
ELBOW-GRIP LENGTH	11T	BITRAGIUN BREADTH	14H
ELBOW (RADIALE) HEIGHT	4T	FACE BREADTH (BIZYGOMATIC)	26H
FUNCTIONAL REACH	2W	FOOT BREADTH	64C
FUNCTIONAL REACH EXTENDED	3W	HAND BREADTH	58C
OVERHEAD REACH HEIGHT	1W	HEAD BREADTH	55C
OVERHEAD REACH, SITTING	4W	MINIMUM FRONTAL BREADTH	25H
RADIALE-STYLIION LENGTH	10T	NUSE BREADTH	30H
SHOULDER CIRCUMFERENCE	25C	OVERHEAD REACH BREADTH	8H
SHOULDER-ELBOW LENGTH	13C		
SLEEVE INSEAM LENGTH	51C	BUTTOCK/HIPS	
SLEEVE OUTSEAM LENGTH	52C	BACK CURVATURE-HIP	46C
AXILLA		BUTTOCK HEIGHT	8C
AXILLA HEIGHT	4C	BUTTOCK-KNEE LENGTH	17C
SLEEVE INSEAM LENGTH	51C	FUNCTIONAL LEG LENGTH	5W
SLEEVE OUTSEAM LENGTH	52C	HIP CIRCUMFERENCE	30C
BACK CURVATURE-CHEST	44C		

**INDEX BY NAME,ANATOMICAL LOCATION,AND MEASUREMENT TECHNIQUE**

BUTTOCK HEIGHT	8C	DEPTHS	
BUTTOCK-KNEE LENGTH	17C	CHEST DEPTH	18C
		WAIST DEPTH	19C
CALF CIRCUMFERENCE	39C	EARS	
CERVICALE		BITRAGION-CORONAL ARC	2H
WAIST BACK LENGTH	47C	BITRAGION-FRONTAL ARC	3H
CHEST		BITRAGION-MENTON ARC	4H
BACK CURVATURE-CHEST	44C	BITRAGION-SUBMANDIBULAR ARC	5H
CHEST CIRCUMFERENCE	27C	HEAD HGT (TRAGION-VERTEX)	15H
CHEST DEPTH	18C	TRAGION TO WALL	13H
CHEST HEIGHT	5C	ECTOCANTHUS TO VERTEX	16H
SUBSTERNALE HEIGHT	3T	ECTOCANTHUS TO WALL	12H
SUPRASTERNALE HEIGHT	2T	ELBOW-GRIP LENGTH	11T
CHEST CIRCUMFERENCE	27C	ELBOWS	
CHEST DEPTH	18C	ACROMION-RADIALE LENGTH	9T
CHEST HEIGHT	5C	ELBOW-GRIP LENGTH	11T
CHIN/SEE MENTON		ELBOW-FINGERTIP LENGTH	14C
CIRCUMFERENCES		ELBOW (RADIALE) HEIGHT	4T
ANKLE CIRCUMFERENCE	40C	RADIALE-STYLIUM LENGTH	10T
BICEPS CIRCUMFRENCE/FLEXED	33C	SHOULDER-ELBOW LENGTH	13C
BICEPS CIRCUMFRNCE/RELAXED	23T	EYES	
CHEST CIRCUMFERENCE	27C	BIOCULAR BREADTH	27H
CALF CIRCUMFERENCE	39C	ECTOCANTHUS TO VERTEX	16H
FOOT CIRCUMFERENCE	66C	ECTOCANTHUS TO WALL	12H
HAND CIRCUMFERENCE	59C	EYE HEIGHT, SITTING	12C
HEAD CIRCUMFERENCE	54C	INTERPUPILLARY DISTANCE	28H
HEEL-ANKLE CIRCUMFERENCE	63C	FACE BREADTH (BIZYGOMATIC)	26H
HIP CIRCUMFERENCE	30C	FACE LGTH (SELLION-MENTON)	23H
SHOULDER CIRCUMFERENCE	25C	FEET	
WAIST CIRCUMFERENCE	29C	FOOT CIRCUMFERENCE	06C
WAIST CIRCUMFRCE/OMPHALION	19T	FOOT LENGTH	02C
CRINION-MENTON	24H	FUNCTIONAL LEG LENGTH	5H
DELTOID MUSCLES		HEEL-ANKLE CIRCUMFERENCE	63C
SHOULDER CIRCUMFERENCE	25C	INSTEP LENGTH	01C
		SPHYRION HEIGHT	69C

INDEX BY NAME, ANATOMICAL LOCATION, AND MEASUREMENT TECHNIQUE

FINGERTIP		HEAD AND FACE	
ELBOW-FINGERTIP LENGTH	14C	BIOGULAR BREADTH	27H
FOOT CIRCUMFERENCE	56C	BITRAGION BREADTH	14H
FOOT LENGTH	62C	BITRAGION-CORONAL ARC	2H
FUNCTIONAL LEG LENGTH	5W	BITRAGION-FRONTAL ARC	3H
FUNCTIONAL REACH	2W	BITRAGION-MENTON ARC	4H
FUNCTIONAL REACH EXTENDED	3W	BITRAGION-SUBMANDIBULAR ARC	5H
GLABELLA TO VERTEX	17H	CRINION-MENTON	24H
GLABELLA TO WALL	6H	ECTOCANTHUS TO VERTEX	16H
GLABELLA		ECTOCANTHUS TO WALL	12H
BITRAGION-FRONTAL ARC	3H	FACE BREADTH (BIZYGMATIC)	26H
GLABELLA TO VERTEX	17H	FACE LGTH (SELLION-MENTON)	23H
GLABELLA TO WALL	6H	GLABELLA TO VERTEX	17H
		GLABELLA TO WALL	6H
		HEAD BREADTH	>5C
		HEAD CIRCUMFERENCE	54C
		HEAD HGT (TRAGION-VERTEX)	15H
		HEAD LENGTH	50C
		INTERPUPILLARY DISTANCE	28H
		LIP PROTRUSION TO WALL	10H
		MENTON TO VERTEX	22H
		MENTON TO WALL	11H
		MINIMUM FRONTAL BREADTH	25H
		MOUTH BREADTH, SMILING	31H
		NOSE BREADTH	30H
GRIP		NOSE LENGTH	29H
ELBOW-GRIP LENGTH	11T	PRONASALE TO VERTEX	19H
HAND BREADTH	58C	PRONASALE TO WALL	8H
HAND CIRCUMFERENCE	59C	SAGITTAL ARC	1H
HANDS		SELLION TO VERTEX	18H
HAND BREADTH	58C	SELLION TO WALL	7H
HAND CIRCUMFERENCE	59C	STOMION TO VERTEX	21H
HAND LENGTH	60C	SUBNASALE TO VERTEX	20H
KNUCKLE HEIGHT	5T	SUBNASALE TO WALL	9H
PALM LENGTH	57C	TRAGION TO WALL	13H
WRIST CIRCUMFERENCE	36C	HEEL-ANKLE CIRCUMFERENCE	63C
HEAD BREADTH	55C	HEELS	
HEAD CIRCUMFERENCE	54C	FOOT LENGTH	62C
HEAD LENGTH	56C	FUNCTIONAL LEG LENGTH	5W
		HEEL-ANKLE CIRCUMFERENCE	63C
		INSTEP LENGTH	61C

INDEX BY NAME, ANATOMICAL LOCATION, AND MEASUREMENT TECHNIQUE

<b>HEIGHTS</b>			
AXILLA HEIGHT	4C	KNEELING HEIGHT	11W
BENT TORSO HEIGHT	9W	KNEELING LEG LENGTH	12W
CHEST HEIGHT	5C	POPLITEAL HEIGHT	16C
BUTTOCK HEIGHT	8C	KNUCKLE HEIGHT	5T
ELBOW (RADIALE) HEIGHT	4T	<b>LEGS</b>	
EYE HEIGHT, SITTING	12C	ANKLE CIRCUMFERENCE	40C
GLUTEAL FURROW HEIGHT	7T	BENT KNEE HEIGHT, SUPINE	13W
KNEE HEIGHT, SITTING	15C	BUTTOCK-KNEE LENGTH	17C
KNEELING HEIGHT	11W	CALF CIRCUMFERENCE	39C
KNUCKLE HEIGHT	5T	FUNCTIONAL LEG LENGTH	5W
OVERHEAD REACH HEIGHT	1W	HEEL-ANKLE CIRCUMFERENCE	63C
POPLITEAL HEIGHT	16C	HORIZONTAL LGTH, KNEELING	14W
SITTING HEIGHT	11C	KNEE HEIGHT, SITTING	15C
SPHYRION HEIGHT	69C	KNEELING LEG LENGTH	12W
STATURE	2C	POPLITEAL HEIGHT	16C
STATURE (CLOTHED)	7W	TIBIALE HEIGHT	8T
SUBSTERNALE HEIGHT	3T	<b>LENGTHS</b>	
SUPRASTERNALE HEIGHT	2T	ACROMION-RADIALE LENGTH	9T
TIBIALE HEIGHT	8T	BUTTOCK-KNEE LENGTH	17C
WAIST HEIGHT	6C	ELBOW-FINGERTIP LENGTH	14C
<b>HIP CIRCUMFERENCE</b>			
HIP CIRCUMFERENCE	30C	ELBOW-GRIP LENGTH	11T
<b>HORIZONTAL LGTH, KNEELING</b>			
HORIZONTAL LGTH, KNEELING	14W	FOOT LENGTH	62C
<b>INSTEP LENGTH</b>			
INSTEP LENGTH	61C	FUNCTIONAL LEG LENGTH	5W
<b>INTERPUPILLARY DISTANCE</b>			
INTERPUPILLARY DISTANCE	28H	HAND LENGTH	60C
<b>INTERSCYE, BACK</b>			
INTERSCYE, BACK	42C	HEAD LENGTH	50C
<b>INTERSCYE, FRONT</b>			
INTERSCYE, FRONT	43C	HORIZONTAL LGTH, KNEELING	14W
<b>KNEE HEIGHT, SITTING</b>			
KNEE HEIGHT, SITTING	15C	INSTEP LENGTH	61C
<b>KNEELING HEIGHT</b>			
KNEELING HEIGHT	11W	INTERSCYE, BACK	42C
<b>KNEELING LEG LENGTH</b>			
KNEELING LEG LENGTH	12W	INTERSCYE, FRONT	43C
<b>KNEES</b>			
BENT KNEE HEIGHT, SUPINE	13W	KNEELLING LEG LENGTH	12W
BUTTOCK-KNEE LENGTH	17C	PALM LENGTH	57C
HORIZONTAL LGTH, KNEELING	14W	RADIALE-STYLIION LENGTH	10T
KNEE HEIGHT, SITTING	15C	SHOULDER-ELBOW LENGTH	13C
<b>LIPS</b>			
<b>LIP PROTRUSION TO WALL</b>			
LIP PROTRUSION TO WALL	10H	<b>LIPS</b>	
<b>MOUTH BREADTH, SMILING</b>			
MOUTH BREADTH, SMILING	31H	<b>STOMION TO VERTEX</b>	
STOMION TO VERTEX	21H		

INDEX BY NAME, ANATOMICAL LOCATION, AND MEASUREMENT TECHNIQUE

MANDIBLE		
BITRAGION-SUBMANDIBULAR ARC	5H	
MENTON TO VERTEX	22H	
MENTON TO WALL	11H	
MENTON		
BITRAGION-MENTON ARC	4H	
CRINION-MENTON	24H	
FACE LGTH (SELLION-MENTON)	23H	
MENTON TO VERTEX	22H	
MENTON TO WALL	11H	
MINIMUM FRONTAL BREADTH	25H	
MOUTH BREADTH, SMILING	31H	
MOUTH		
LIP PROTRUSION TO WALL	10H	
MOUTH BREADTH, SMILING	31H	
STOMION TO VERTEX	21H	
NASAL ROOT/SEE SELLION		
NOSE BREADTH	30H	
NOSE LENGTH	29H	
NOSE		
NOSE BREADTH	30H	
NOSE LENGTH	29H	
PRONASALE TO VERTEX	19H	
PRONASALE TO WALL	8H	
SUBNASALE TO VERTEX	20H	
SUBNASALE TO WALL	9H	
OVERHEAD REACH BREADTH	8W	
OVERHEAD REACH, SITTING	4W	
PALM LENGTH	57C	
POPLITEAL HEIGHT	16C	
PRONASALE TO VERTEX	19H	
PRONASALE TO WALL		8H
RADIALE-STYLIION LENGTH		10T
RADIALE		
ACROMION-RADIALE LENGTH		9T
ELBOW (RADIALE) HEIGHT		4T
RADIALE-STYLIION LENGTH		10T
REACHES		
FUNCTIONAL REACH		2W
FUNCTIONAL REACH EXTENDED		3W
OVERHEAD REACH HEIGHT		1W
OVERHEAD REACH, SITTING		4W
SAGITTAL ARC		1H
SELLION TO VERTEX		18H
SELLION TO WALL		7H
SELLION		
FACE LGTH (SELLION-MENTON)		23H
NOSE LENGTH		29H
SELLION TO VERTEX		18H
SELLION TO WALL		7H
SHOULDER-ELBOW LENGTH		13C
SHOULDER		
ACROMION-RADIALE LENGTH		9T
BIACROMIAL BREADTH		16T
BENT TORSO BREADTH		10W
OVERHEAD REACH BREADTH		8W
SHOULDER CIRCUMFERENCE		25C
SHOULDER-ELBOW LENGTH		13C
SLEEVE INSEAM LENGTH		51C
SITTING HEIGHT		11C
SITTING HEIGHTS		
EYE HEIGHT, SITTING		12C
KNEE HEIGHT, SITTING		15C
POPLITEAL HEIGHT		16C
SITTING HEIGHT		11C

INDEX BY NAME, ANATOMICAL LOCATION, AND MEASUREMENT TECHNIQUE

<b>SKINFOLDS</b>		
BICEPS SKINFOLD	27T	TORSO BACK
SUBSCAPULAR SKINFOLD	25T	BACK CURVATURE-CHEST
SUPRAILIAC SKINFOLD	28T	BACK CURVATURE-HIP
TRICEPS SKINFOLD	26T	BACK CURVATURE-WAIST
SLEEVE INSEAM LENGTH	51C	INTERSCYE, BACK
		SUBSCAPULAR SKINFOLD
		WAIST BACK LENGTH
SLEEVE OUTSEAM LENGTH	52C	TORSO FRONT
SPHYRION HEIGHT	69C	INTERSCYE, FRONT
		WAIST FRONT LENGTH
STATURE	2C	TRAGION
STATURE (CLOTHED)	7W	BITRAGION BREADTH
STOMION		BITRAGION-CORONAL ARC
LIP PROTRUSION TO WALL	10H	BITRAGION-FRONTAL ARC
MOUTH BREADTH, SMILING	31H	BITRAGION-MENTON ARC
STOMION TO VERTEX	21H	BITRAGION-SUBMANDIBULAR ARC
STYLION		HEAD HIGHT (TRAGION-VERTEX)
HAND LENGTH	60C	TRAGION TO WALL
RADIALE-STYLION LENGTH	10T	TRICEPS SKINFOLD
SUBNASALE TO VERTEX	20H	UPPER ARM
SUBNASALE TO WALL	9H	BICEPS CIRCUMFERNCE/FLEXED
SUBNASALE		BICEPS CIRCUMFRNCE/RELAXED
NOSE LENGTH	29H	BICEPS SKINFOLD
SUBNASALE TO VERTEX	20H	TRICEPS SKINFOLD
SUBNASALE TO WALL	9H	VERTEX
SUBSCAPULAR SKINFOLD	25T	BITRAGION-CORONAL ARC
SUBSTERNALE HEIGHT	3T	ECTOCANTHUS TO VERTEX
SUPRAILIAC SKINFOLD	28T	GLABELLA TO VERTEX
SUPRASTERNALE		HEAD HIGHT (TRAGION-VERTEX)
SUPRASTERNALE HEIGHT	2T	MENTON TO VERTEX
WAIST FRONT LENGTH	48C	PRONASALE TO VERTEX
TIBIALE HEIGHT	8T	SELLION TO VERTEX
		SITTING HEIGHT
		STATURE
		STATURE (CLOTHED)
		STOMION TO VERTEX
		SUBNASALE TO VERTEX
		WAIST BACK LENGTH

INDEX BY NAME, ANATOMICAL LOCATION, AND MEASUREMENT TECHNIQUE

WAIST CIRCUMFERENCE 29C

WAIST CIRCUMFRCE/OMPHALION 19T

WAIST DEPTH 19C

WAIST FRONT LENGTH 48C

WAIST HEIGHT 6C

WAIST

BACK CURVATURE-WAIST 49C

WAIST BACK LENGTH 47C

WAIST CIRCUMFERENCE 29C

WAIST CIRCUMFRCE/OMPHALION 19T

WAIST DEPTH 19C

WAIST FRONT LENGTH 48C

WAIST HEIGHT 6C

WALL

ECTOCANTHUS TO WALL 12H

GLABELLA TO WALL 6H

LIP PROTRUSION TO WALL 10H

MENTON TO WALL 11H

PRONASALE TO WALL 8H

SELLION TO WALL 7H

SUBNASALE TO WALL 9H

TRAGION TO WALL 13H

WEIGHT 1C

WEIGHT (CLOTHED) 6W

WRIST

RADIALE-STYLIION LENGTH 10T

ZYGOMATIC

BITRAGION-SUBMANDIBULAR ARC 5H